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A review of afrotropical *Afroholopogon* Londt, 1994 with the description of a new genus and new species (Diptera: Asilidae: Stenopogoninae)

by

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ABSTRACT

Afrotropical species previously assigned to *Afroholopogon* Londt, 1994 are revised. Following the reallocation of a species from *Rhabdogaster* Loew, 1858, the transfer of some species to *Rhabdogaster* and to a new genus, and the discovery of undescribed species, twenty-one species, arranged in two genera, are dealt with. Keys, and notes on taxonomy, distribution, phenology and biology, are provided.

New genus: *Ischiolobos* (type species – *Heteropogon holcocephaloides* Lindner, 1955).

New species: *Afroholopogon*: *anassa* (South Africa, Swaziland), *argos* (South Africa), *aspros* (South Africa), *chirundu* (Zimbabwe, South Africa), *dasys* (Oman, Eritrea), *mauros* (South Africa, Botswana, Namibia), *melas* (South Africa), *pardosoros* (South Africa), *tanystylos* (South Africa), *uranopia* (South Africa), *xeros* (Namibia, South Africa). *Ischiolobos*: *mesotopos* (South Africa), *notios* (South Africa).

New combinations: *Rhabdogaster meilloni* Oldroyd, 1974 transferred to *Afroholopogon*; *Heteropogon holcocephaloides* Lindner, 1955 and *Holopogon niveoscutum* Hull, 1967 transferred to *Ischiolobos*. *Heteropogon gracilis* Engel & Cuthbertson, 1937 transferred to *Rhabdogaster*.

New synonyms: *Holopogon tomentosus* Oldroyd, 1974 = *Afroholopogon capensis* (Lindner, 1961).

Previously described species considered valid: *Afroholopogon*: *africanus* (Ricardo, 1925), *capensis* (Lindner, 1961), *fugax* (Loew, 1858), *meilloni* (Oldroyd, 1974), *peregrinus* (Engel, 1929), *vumba* (Oldroyd, 1974). *Ischiolobos*: *holcocephaloides* (Lindner, 1955), *niveoscutum* (Hull, 1967).

INTRODUCTION

Asilids of the genus *Afroholopogon* Londt, 1994 are largely confined to southern African parts of the Afrotropical Region. They are small, dark coloured flies with patterns of silvery pruinescence. Their wings are often transparent and their bodies frequently covered with long white or yellow setae (Fig. 2). The majority of species are found in biomes dominated by grass, although some species are commonly found resting on, and hawking from, rocky outcrops and boulders.

The following brief historical account of species assigned to *Afroholopogon* by Londt (1994) provides orientation to taxa handled in this paper.

Loew (1847): Described the genera *Holopogon*, *Heteropogon* and *Cyrtopogon* using non afrotropical species as type species.

Loew (1858): Described *Holopogon fugax* on material said to have been collected by Wahlberg in 'Caffraria'. He also provided the first description of *Rhabdogaster*, whose species strongly resemble those of *Afroholopogon*; this similarity has led to misidentifications and confusion.

Loew (1860): Repeated and elaborated on his 1858 description of *H. fugax* and *Rhabdogaster*.

Ricardo (1925): Described *Cyrtopogon africanus* from South Africa.

Engel (1929): Described *Heteropogon peregrinus* from South Africa.

Engel & Cuthbertson (1937): Described *Heteropogon gracilis* from Zimbabwe, noting its similarity to species in the *Heteropogon waltlii* group.

Lindner (1955): Described *Heteropogon holcocephaloides* from Tanzania.

Lindner (1961): Described *Heteropogon capensis* from South Africa.

Hull (1967): Described *Holopogon niveoscutum* from Lesotho.

Lindner (1973): Described *Heteropogon flavidus* and *oldroydi* from Namibia.

Oldroyd (1974): Keyed two southern African species of *Heteropogon* (*peregrinus* and *gracilis*) mentioning Lindner's *H. flavidus* and *oldroydi* in a footnote and clearly pointing out the importance of the condition of the 'postmetacoxal area' as a diagnostic character for *Rhabdogaster*. He also described two new species of *Holopogon* (*vumba* from Zimbabwe and *tomentosus* from South Africa) in a key to South African species that also included *fugax* and *niveoscutum*. In considering *Rhabdogaster*, he described two new species (*meilloni* and *rusticus*), including them in a key to five southern African species.

Oldroyd (1980): Catalogued afrotropical Asilidae, including one *Cyrtopogon* (*africanus*), seven *Heteropogon* (*capensis*, *flavidus*, *gracilis*, *holcocephaloides*, *oldroydi*, *peregrinus*, *waltlii*), four *Holopogon* (*fugax*, *niveoscutum*, *tomentosus*, *vumba*) and six *Rhabdogaster* (*maculipennis*, *major*, *meilloni*, *nitida*, *nuda*, *rustica*) species.

Londt (1994): Described *Afroholopogon* to include all afrotropical species previously assigned to *Cyrtopogon*, *Heteropogon* and *Holopogon* (those listed by Oldroyd, 1980), as it was demonstrated that they were not congeneric.

Londt (1999): Keyed all the genera of afrotropical Stenopogoninae, including *Afroholopogon*.

There were 12 afrotropical species assigned to *Afroholopogon* at the commencement of this revision (i.e. those listed by Londt (1994) – *africanus*, *capensis*, *flavidus*, *fugax*, *gracilis*, *holcocephaloides*, *niveoscutum*, *oldroydi*, *peregrinus*, *tomentosus*, *vumba* and *waltlii*). As species of *Rhabdogaster* are superficially similar to those of *Afroholopogon*, and have been confused by some scientists, it was decided to revise both genera to ensure correct assignment of species and to provide descriptions of new species. Although the revision of *Rhabdogaster* is still to be published, it is relevant to note that at the commencement of this study there were eight species in that genus (i.e. those listed by Londt (1993) – *cinerascens* (Wulp, 1899), *maculipennis* Engel, 1929, *major* Oldroyd, 1970, *meilloni* Oldroyd, 1974, *nitida* Hull, 1967, *nuda* Loew, 1858, *pulverulentus* (Loew, 1858), *rustica* Oldroyd, 1974) and that efforts were made to study all the relevant type material. Work on *Rhabdogaster* led to the discovery that *meilloni* had been incorrectly placed in *Rhabdogaster* and should be transferred to *Afroholopogon*.

It should be noted that Engel's (1929) Zimbabwean record of *Anisopogon waltlii* (Meigen, 1838), a palaearctic species originally placed in *Dasypogon* Meigen, 1803 and listed by me (1994), at least provisionally, as a possible afrotropical *Afroholopogon*, has been rejected. At least two species of palaearctic *Heteropogon* are likely to be transferred to *Afroholopogon* (Geller-Grimm pers. comm.) and so the matter of *A. waltlii*'s position may be further clarified.

During study of *Afroholopogon* it was noted that four species, two undescribed, could be grouped together using distinctive characteristics. A separate genus is created to accommodate these species.

MATERIALS AND METHODS

Material

Specimens studied are housed in the Natal Museum (NMSA) unless otherwise indicated. Other institutions providing or housing material are listed below, together with the abbreviations used in the text when citing these repositories and the names of people who assisted with information and/or loans.

BMNH – The Natural History Museum, London, U.K. (J. Chainey & D. Notton).
CASC – California Academy of Sciences, San Francisco, U.S.A. (N. Penny).
MZLU – Museum of Zoology, Lund University, Sweden (R. Danielsson).
NHRS – Naturhistoriska Riksmuseet, Stockholm, Sweden (B. Viklund).
NMBZ – National Museum of Zimbabwe, Bulawayo, Zimbabwe (V. Muyambo).
NMNH – National Museum of Natural History, Smithsonian Institution, Washington, U.S.A. (F. Christian Thompson).
SAMC – South African Museum, Cape Town, South Africa (M. Cochrane).
SMNS – Staatliches Museum für Naturkunde Stuttgart, Stuttgart, Germany (H.-P. Tschorsnig).
ZSMC – Zoologische Staatssammlung, Munchen, Germany (W. Schacht).

In all instances, specimens had been dry-mounted on pins. Drawings were executed with the aid of a drawing-tube attached to a Wild stereo-microscope, male terminalia being first removed, macerated in warm potassium hydroxide, and extended (by inserting a pin into the cut end). Genitalia were stored temporarily in glass vials containing 70% ethanol until the completion of the study, when they were sealed in polyethylene genitalia vials containing a mixture of ethanol and glycerine and attached to the specimen pins.

Label data

In recording label data, a standard format has been employed where each label is demarcated by the use of single inverted commas, each line of data being separated by a spaced slash (/) (note that when a slash appears on labels it is cited without spaces). The symbol '~' indicates that the following data are on the reverse of the label just documented, while square brackets are used to add useful additional information or comment not found on labels. In this regard, coordinates are usually provided in square brackets (excluding symbols for degrees and minutes) when these, or a quarter-degree grid reference, do not appear on a label. These coordinates appear immediately following the gazetteered name, no adjustment being made when specimens were collected some distance from the place named. In some instances names or their spelling have changed, and so additional information may be provided when necessary. When two or more similar entries were encountered in gazetteers, the coordinates of the 'populated place' are usually given. The institution housing the specimen(s) is supplied (in parentheses) when *not* the Natal Museum. Specimens are also arranged roughly in geographical order (i.e. according to latitude and longitude) to assist in mapping.

Descriptive passages

Descriptions and redescriptions are provided using the following standardised headings:

Description / Redescription: A general heading for the description of the species which is usually based on the primary type, but sometimes supplemented by information obtained from other specimens. The section is divided into subsections dealing with the *head*, *thorax* and *abdomen*.

Variation: Some indication of the degree of sexual dimorphism and individual/geographic variation seen in the species.

Type specimens: All known type-specimens are listed. In each instance it is recorded if the specimen was seen by me. In some instances additional notes are presented relating to types.

Type locality: Type localities are cited; in some instances these are designated for the first time.

Other material studied: This section lists material, other than types, seen by me. Specimens are arranged in the standard format described above.

Other recorded material: Where relevant, a comment is provided regarding published records of specimens not studied by me.

Distribution, phenology and biology: A section dealing briefly with these subjects. Reference to tabulated information and maps is made. When biological information is not supplied this is because there is none.

Similar species: A section used for brief comments on similarities with other species. No attempt at establishing phylogenetic relationships is made.

Morphology

Terminology and abbreviations used generally follow McAlpine (1981). As far as descriptions are concerned the following characters were given attention.

Head:

Antenna: Coloration, pruinosity, setation (setae are confined to scape and pedicel). An antennal segmental formula is provided that gives sizes of segments relative to the scape (i.e. scape is always 1.0). The ‘segments’ recognised are – scape, pedicel, postpedicel, basal element of style, terminal elements of style (i.e. long second middle element and terminal seta-like sensory element are combined).

Face: Coloration, pruinosity, colour and development of mystax. In describing the mystax terms such as dorsal, central and ventral refer to positions in profile view. An indication of face width relative to head width (measured across widest part of head in anterior view) is provided as a ‘face width : head width ratio’ (face width always indicated as 1.0).

Frons and vertex: Coloration, pruinosity, setation (on ocellar tubercle and surrounds).

Occiput: Coloration, pruinosity, setation. As far as setation is concerned, the terms dorsal, central and ventral refer to the positions of setae when the head is viewed laterally. This view implies that visible setae are usually those close to the posterior margin of the eye.

Proboscis: Coloration and setation.

Palpi: Coloration and setation. Palpal segments 1 and 2 are abbreviated *plp* 1 and 2.

Thorax:

Mesonotum: Coloration, pruinosity, setation. When macrosetae are discernible they are counted and the number provided. When no number is given it is an indication that setae are poorly developed and not considered to be macrosetae. Abbreviations used are *ac* (acrostichals), *dc* (dorsocentrals), *npl* (notopleurals), *sa* (supra-alars), *pa* (postalars).

Scutellum: Coloration, pruinosity, setation. The disc is usually asetose, but may possess a few tiny, indistinct setae. Marginal macrosetae are always present but may be thin and difficult to distinguish from ordinary setae.

Pleura: General coloration, pruinosity and setation.

Wing: Measurements of length (from humeral vein to tip) and width (at level of first radial fork) are provided along with an indication of colour. In some instances wing membranes are clearly stained, but when microtrichia are abundant and darkly coloured, staining may not be obvious. The basal angle of the fourth radial cell (r_4) was measured with a protractor as shown in Fig. 1 and is provided although the value of this character is debatable. It may be useful in a few instances, especially when the angle greatly exceeds 20°.

Halter: Coloration.

Legs: General coloration, pruinosity (of coxae only) and setation are usually provided. Descriptions of colour are generalised as variation is common. Abbreviations such as *cx* (coxa/coxae), *fem* (femur/femora) and *tib* (tibia/tibiae) or *tar* (tarsus/tarsi) are used to save space, while the numbers 1, 2 and 3 refer to the prothoracic/fore, mesothoracic/mid and metathoracic/hind legs. Members of the new genus (*Ischiolobos*) possess an elongate peg-like projection on the anterior face of the metathoracic coxa (Fig. 5). This is usually seen in lateral view but may otherwise be seen in ventral view.

Abdomen:

Terga and sterna: Coloration, pruinosity and setation.

Genitalia: Brief description of male terminalia. Anatomical features abbreviated – epandrium (*epand*), proctiger (*proc*), gonocoxite (*goncx*), hypandrium (*hypd*):

Illustrations

Final illustrations were prepared from pencil drawings. They do not show setae, as the shape of structures is considered more important than setal number or distribution. Illustrations of male genitalia may not show structures that are obscured by others. Heads and wings were not removed from specimens for illustration.

TAXONOMY

Afroholopogon Londt, 1994

Holopogon Loew, 1847: 473 (as subgenus of *Dasypogon*). Type species: *Dasypogon nigripennis* Meigen, 1820, by designation of Coquillett (1910: 522). Afrotropical species only.

Heteropogon Loew, 1847: 488 (as subgenus of *Dasypogon*). Type species: *Dasypogon manicatus* Meigen, 1820, by designation of Back (1909: 318). Afrotropical species only.

Cyrtopogon Loew, 1847: 516. Type species: *Asilus ruficornis* Fabricius, 1794, by designation of Rondani (1856: 157). Afrotropical species only.

Afroholopogon Londt, 1994*a*: 63. Type species: *Holopogon vumba* Oldroyd, 1974, by original designation.

Afroholopogon africanus (Ricardo, 1925)

Figs 7–9, 77

Cyrtopogon africanus Ricardo, 1925: 275–6; Oldroyd 1974: 34; 1980: 360 (catalogue). Type locality: South Africa.

Afroholopogon africanus: Londt 1994: 64, figs 14–16 ♂ genitalia.

Redescription: Based on holotype.

Head: Antenna: Dark red-brown, scape largely apruinose rest fine gold pruinose, strongly black setose; segmental formula 1.0:0.9:3.4:0.3:0.9. Face dark red-brown, silver pruinose except area of mystax, mystax black, few yellow setae ventrally, covers lower three-quarters of face. Face width:head width ratio 1.0:4.6. Frons and vertex dark red-brown, mostly shiny apruinose, fine dark red-brown setose. Occiput dark red-brown, silver pruinose, yellow-orange (golden) setose. Proboscis dark red-brown, yellow-orange setose. Palpi dark red-brown, yellow-brown setose (few black setae on *plp* 2).

Thorax: Mesonotum black, shiny apruinose except for silver-gold lateral and posterior bands. Setation: *ac* – fine dark red-brown anteriorly, longer orange posteriorly; *dc* – fine orange; *npl* – 5–6 orange-yellow; *sa* – fine long orange; *pa* – 6 fine long setae. Scutellum dark red-brown, largely shiny apruinose but weakly silver-gold anterolaterally, disc asetose, margin with 7 long thin orange setae. Pleura dark red-brown, red-gold pruinose except for large apruinose parts of meron and katepistenum, orange setose. Wing 8.2 x 3.3 mm, pale orange-brown (appears stained), microtrichia orange-brown, extensively covering membrane, basal angle of r_4 19°. Halter pale brown with yellow-white knob. Legs: *cx* dark red-brown, silver-gold pruinose, orange setose except *cx* 1 being predominantly black setose (few orange distally); trochanters dark red-brown; *fem* orange, mainly dark red-brown setose (some fine orange setae); *tib* as *fem*; *tar* similar to *fem* but all minor setae black.

Abdomen: Terga black, shiny apruinose except for narrow gold lateral margins, setae orange, short dorsally, long laterally. Sterna black, gold pruinose (difficult to see through setae), numerous long fine orange setose. Genitalia: Holotype not dissected, another ♂ illustrated (Figs 7–9): Hypopygium darkly sclerotised (requiring to be bleached for illustration), rotated between 90–180°; *epand* (in dorsal view) deeply incised medially to form two acutely pointed lobes joined narrowly basally; *goncx* externally distally bilobed, lobes of distinctive shape; *hypd* (in lateral view) projecting distally beyond level attained by *goncx*, gradually tapering (in ventral view) to a single fairly broad medial process.

Variation: Sexes similar. A species displaying little variation. Setae described as being orange in the holotype may be pale yellow in some specimens.

Type specimens (seen): SOUTH AFRICA: ♂ **holotype** 'Cape Colony / French Hoek [Franschhoek 3355S 1907E] / Jan. 1917' ~ 'K.H. Barnard', '*Cyrtopogon / africanus* n. sp. / Ricardo', 'Type / M', 'Holo- / type.' [orange] (SAMC); 1♀ **paratype** 'Para / Type / ♀ ', 'Gt. Wind-hoek / Tulbagh [3317S 1909E] / 4.500 ft' ~ 'Nov. 1916 / Lightfoot' (SAMC); 1♀ **paratype** 'Para- / type' [yellow-bordered circular], 'Gt. Wint-hoek / Tulbagh / 4.500 ft.' ~ 'ov. 1916 / ghtfoot' [trimmed to exclude full data i.e. *N*ov. & *Li*ghtfoot], 'Pres. by / South African / Museum. / 10-iii-1924.', 'Paratype / *Cyrtopogon* / *africanus* Ricardo / det. J.E. Chainey, 1983', '*Afroholopogon / africanus* / (Ricardo, 1925) / Det. J.G.H. Londt' (BMNH).

Note: Other specimens with identical locality labels to those of the holotype and paratypes are found in SAMC. It is not certain that Ricardo studied these specimens and so they are excluded from the type series and listed below.

Other material studied: SOUTH AFRICA: 1♂ 2♀ , 'Paleisheuwel [3228S 1843E] / C.P.' ~ 'Mus., Exp. / Nov. 1948' (SAMC); 5♂ 2♀ , 'South Africa, W Cape. / 4 miles E. of Citrusdal [3235S 1901E] / October 1969. / S.A. Museum °Expedition' (SAMC); 6♂ 6♀ , 'S Africa: Cape #61 / 33 km N Op Die Berg /

32°42'S:19°13'E 800 m / Date: 31.x.1991 / Coll: J.G.H. Londt / Sandy area; flowers'; 1♀, 'Stellenbosch [3356S 1851E] / C.P.' ~ 'R. F. Lawrence / Nov. 1930' (SAMC); 3♂ 3♀ 1?, 'Gt. Wind-hoek / Tulbagh [3317S 1909E] / 4.500 ft' ~ 'Nov. 1916 / Lightfoot' (SAMC); 1?, 'Ceres Div. / Matroosberg [3323S 1940E] / 3.500 ft' ~ 'Lightfoot / Jan 1917' (SAMC); 9♂ 10♀ 1?, Wit River Valley / Bains Kloof [3337S 1906E] / C.P.' ~ 'Mus. Exp. / Dec. 1949' (SAMC); 2♂, 'Cape Colony / French Hoek [3355S 1907E] / Jan. 1917' ~ 'K.H. Barnard' (SAMC); 1♀, 'Sth Africa: W Cape / Theewaters Nat. Res. / Franschhoek Pass / 33°55'30"S 19°09'37"E / 544 m 13.xii.2004 / J. & A. Londt Fynbos'; 2♂, 'S Africa: W Cape #2 / 11 km SE Franschhoek / 10.i.1983 3419Cc [sic, should be 3319CC] / P. Stabbins & R. Miller / DuToits River bridge'; 1♂, 'Sth Afr. Western Cape / Fernkloof Nature Reserve / Hermanus 16–17.xii.2000 / 34°23'40"S:19°15'58"E / JGH Londt 90 m Natural / bush with many flowers'.

Other recorded material: The BMNH database records 1♀, S. Africa, Cape Province, Ceres, 1500 ft, xii.1920, R.E. Turner; 1♀, S. Africa, Cape Province, Ceres, 1–12.xi.1924, R.E. Turner. Oldroyd (1974) gives 'Ceres; Tulbagh, 1370 m; S.W. AFRICA: Windhoek.' and so it is assumed that the databased material is that recorded by Oldroyd. I have not located his 'Tulbagh' and 'Windhoek' material, although he may have been recording the information found on paratype labels and somehow mistaken the 'Wind-hoek' (a mountain near Tulbagh) for Windhoek (capital city of Namibia). The species is unlikely to occur in Namibia.

Distribution (Table 1), phenology (Table 2) and biology: Confined to the fynbos biome of Western Cape Province (Fig. 77). The species flies from October to March (no February records exist). Specimens collected north of Op Die Berg were resting on vegetation. There is one prey record; an Op Die Berg female was collected with a small coleopteran (Curculionidae).

Similar species: *A. capensis* and *peregrinus*, but also *melas* (see discussion).

Afroholopogon anassa sp. n.

Figs 10–12, 77

Etymology: Gr. *anassa* (queen). Refers to the type locality of Queen Elizabeth Park.

Description: Based on holotype.

Head: Antenna: Black, fine silver pruinose, dark red-brown setose; segmental formula 1.0:0.9:2.8:0.4:1.5. Face brown, silver pruinose (weak dorsally), mystax black, setae loosely arranged but extending over most of face. Face width:head width ratio 1.0:3.9. Frons and vertex dark red-brown, weak silver pruinose (mostly apruinose), long black setose. Occiput black, silver pruinose, pale yellow setose. Proboscis dark red-brown, white setose. Palpi dark red-brown, pale yellow setose.

Thorax: Mesonotum dark red-brown to black, shiny apruinose except for silver pruinose lateral margin, small area adjacent to postpronotal lobe and fairly extensive posterior area extending to approximately level of transverse suture. Setation: *ac* – fine white setae; *dc* – fine white setae; *npl* – 2 fine black; *sa* – long white setae (no obvious macrosetae); *pa* – few long white setae. Scutellum dark red-brown to black, largely shiny apruinose with silver anterior margin, disc asetose, margin with 6 long fine white setae. Pleura dark red-brown to black, silver pruinose except for small bare areas on anepisternum and katepisternum, white setose. Wing 4.2 x 1.5 mm (left wing partly broken off), pale brown, microtrichia brown, covering membrane extensively, basal angle of r_4 15°. Halter brown with pale yellow knob. Legs: *cx* dark red-brown, silver pruinose, white setose; trochanters dark red-brown; *fem*, variable – *fem* 1 orange, *fem* 2 orange with extensive dark red-brown ventral surface, *fem* 3 dark red-brown to black with brown-orange distal tip, white setose (a few black); *tib* variable – *tib* 1–2 orange with long black and white setae, *tib* 3 orange with distal half mostly dark red-brown, setae mostly black; *tar* dark red-brown, dark red-brown setose.

Abdomen: Terga black, shiny apruinose except for silver lateral margins, white setose. Sterna black, entirely gold pruinose, long white setose. Genitalia: Holotype not dissected and macerated, paratype illustrated (Figs 10–12): Hypopygium unrotated; *epand* (in dorsal view) deeply incised medially to form two acutely pointed lobes joined narrowly basally; *goncx* externally distally unilobed, lobes of distinctive shape; *hypd* (in lateral view) not projecting distally beyond level attained by *goncx*, suddenly tapering (in ventral view) to a single poorly sclerotised elongate medial process.

Variation: Sexes similar. Specimens display little variation, although those from Pelgrimsrus, Pretoria and Kaapmuiden have yellow setae in the place of white ones. The extent of mesonotal pruinescence is also variable. The hind legs of these specimens are also not as darkly pigmented as those described for the holotype. The tibiae are, for example, entirely orange and lack dark red-brown coloration distally.

Type specimens: SOUTH AFRICA: 2♀ **paratypes**, 'Marieps Mnt. [Mariepskop 2432S 3052E] / iv.1932 / G. van Son.'; 1♂ **paratype**, 'Pelgrimsrus / SE 24.30.Dd. / 19.iv.1979 / J.A. Irish / Dept: of Entomology / University of Pretoria'; 1♀ **paratype**, 'Pelgrimsrus / SE 24.30.Dd. / iv.1979 / D.R. Swart / Dept: of Entomology / University of Pretoria'; 1♂ **paratype**, Pretoria / SE 25.28Cb / v.1979 / P. Koekemoer / Dept: of Entomology / University of Pretoria'; 1♀ **paratype**, 'Kaapmuiden / SE 25 31 Cb / 14.iv.1979 / Van Eeden C.F. / Dept: of Entomology / University of Pretoria'; 1♀ **paratype**, 'Sth Africa: Transvaal / 10 km E of Barberton / on Saddleback Pass / 7.iv.1985 SE2531CC / J. Londt Rocky slope'; 1♀ **paratype**, 'Barberton [2547S 3103E] / 10.5.14 / H.K. Munro', 'SW Bromley / Collection / 1955' (NMNH); 1♀ **paratype**, 'Meyerton / SE 26 28 Ca / i.1979 / P. Koekemoer / Dept: of Entomology / University of Pretoria';♂ **holotype**, 2♀ **paratypes**, 'Sth Africa: KZ-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / JGH Londt Grassland / 900 m 11.v.2000 a.m.'; 1♀ **paratype**, 'Sth Africa: KZ-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / JGH Londt Grassland / 900 m 20.v.2000 a.m.'; 1♀ **paratype**, 'Sth Africa: KZ-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / JGH Londt Grassland / 900 m 18.vi.2000 a.m.'; 2♀ **paratypes**, 'Sth Africa: KZ-Natal / Pietermaritzburg 870 m / Botanical Gardens / 29°36'14"S 30°29'41"E / J.G.H. Londt 24.iv.2000 / *Aristida* grassland area'. SWAZILAND: 1♀ **paratype**, 'Swaziland / Malolotja Wilderness Area / 26°07'S:31°06'E 1530 m / Date: 7.iv.1997 / Coll: P.E. Reavell / Montane grassland'.

Distribution (Table 1), phenology (Table 2) and biology: Known from a few fairly widely separated localities within the south-eastern region of the Savanna Biome of South Africa (Fig. 77). The species flies mainly from April to June (one record exists for January). This species was included in Londt's (2002) study of grassland asilids at Queen Elizabeth Park, Pietermaritzburg. Pending this revision it was called *Afroholopogon* sp. 2 and only five specimens were encountered during that study. The species being found on weeks 19, 20 and 24, was considered primarily autumn-active although the dates fall into what might be called winter. There is a single January record from Meyerton and so the flight period may be different at sites remote from Queen Elizabeth Park. Nothing is known about its biology, except that it can be swept from grass. The ovipositor is of the usual stenopogonine form with well-developed acanthophorites, so it is assumed that oviposition takes place directly into soil.

Similar species: *A. argos* and *aspros* (see discussion).

Afroholopogon argos sp. n.

Figs 13–15, 79

Etymology: Gr. *argos* (white, bright). Refers to the long white setae that cover much of the head, thorax and abdomen of this species.

Description: Based on holotype.

Head: Antenna: black, fine silver pruinose, red-brown (dorsally) and white (ventrally) setose; segmental formula 1.0:1.1:3.1:0.4:1.9. Face black, entirely silver pruinose, mystax white (loosely arranged but covering entire face). Face width:head width ratio 1.0:4.3. Frons and vertex dark red-brown, shiny apruinose, fine red-brown setose. Occiput dark red-brown to black, silver pruinose except for bare area posterior to ocellar tubercle, white setose (few short pale yellow setae dorsally). Proboscis and palpi dark red-brown, white setose.

Thorax: Mesonotum black, shiny apruinose except for narrow silver pruinose lateral and posterior margins. Setation: *ac* – long fine white; *dc* – long fine white; *npl* – 2 slender white; *sa* – long fine white (no obvious macrosetae); *pa* – long fine white (no obvious macrosetae). Scutellum black, largely shiny apruinose except for narrow silver anterior margin, disc asetose, margin with 16 fine white setae. Pleura black, silver pruinose except for bare areas on anepisternum and katepisternum, white setose. Wing 4.4 x 1.7 mm, membrane weakly milky to transparent, microtrichia weakly developed to absent, basal angle of r_4 22°. Halter pale brown with pale yellow knob. Legs: *cx* black, silver pruinose, white setose; trochanters black; *fem* black with distal part orange, white setose; *tib* orange dorsoproximally dark red-brown distoventrally, white setose; *tar* dark red-brown, entirely white setose.

Abdomen: Terga black, shiny apruinose except for narrow silver lateral margins, white setose (short medially long laterally. Sterna black, entirely silver pruinose, long white setose. Genitalia: Holotype not dissected and macerated, paratype illustrated (Figs 13–15): Hypopygium unrotated; *epand* (in dorsal view) deeply incised medially to form two acutely pointed lobes joined narrowly basally; *goncx* externally distally unilobed, lobes of distinctive shape; *hypd* (in lateral view) short, not projecting distally beyond level attained by either *epand* or *goncx*, suddenly tapering (in ventral view) to a single medial process.

Variation: The material, all from a single collection, displays no variation of note.

Type specimens: SOUTH AFRICA: ♂ **holotype**, 2♂ 3♀ **paratypes**, 'South Africa: Natal / Die Kop 1131 m ca 11km / NE of Kranskop / 28°54'57"S:30°57'12"E / Grass & Forest Margin / Londt Whittington & / Chinn 17.iv.1990'; 1♂ 1♀ **paratypes**, 'South Africa: Natal / Die Kop Dist. 500 m ca / 9 km NE of Kranskop / 28°55'51"S:30°56'51"E / Grass & Forest Margin / Londt Whittington & / Chinn 17.iv.1990'.

Distribution (Table 1), phenology (Table 2) and biology: Known only from a single locality in KwaZulu-Natal (Fig. 79). The species has been collected only during April. The type series was swept from tall grass bordering a forest margin. A single prey record is available—a female was found feeding on a tiny dipteran (Empididae).

Similar species: Superficially similar to *fugax* but most similar to *anassa* and *aspros* (see discussion).

Afroholopogon aspros sp. n.

Figs 16–19, 78

Etymology: Gr. *aspros* (white). Refers to the long white setae that cover much of the head, thorax and abdomen of this species.

Description: Based on holotype.

Head: Antenna: Black (tip of style slightly orange), fine silver pruinose (especially scape), white setose; segmental formula 1.0:1.0:3.0:0.5:1.9. Face black, entirely silver pruinose, mystax white (strong setae along epistomal margin, slightly weaker dorsally and extending over entire face). Face width:head width ratio 1.0:4.4. Frons and vertex black, mostly shiny apruinose (little silver pruinose), dark brown setose, ocellar setae brown and white. Occiput black, silver pruinose (except posterior to ocellar tubercle), white setose. Proboscis dark red-brown to black, white setose. Palpi black, white setose.

Thorax: Mesonotum black, shiny apruinose except for narrow silver pruinose lateral and posterior margins. Setation: *ac* – long fine white; *dc* – long fine white; *npl* – 2 poorly developed white; *sa* – long fine white (may be a few weak macrosetae); *pa* – long weak fine white. Scutellum black, largely shiny apruinose except for narrow silver pruinose anterior margin, disc asetose, margin with approx. 16 thin white setae. Pleura black, silver pruinose except for apruinose spot on anepisternum and katepisternum, white setose. Wing 4.9 x 1.7 mm, membrane transparent (slight milky appearance), microtrichia weak to absent, basal angle of r_4 20°. Halter brown-yellow with pale brown-yellow knob. Legs: *cx* black, silver pruinose, white setose; trochanters black; *fem* black with orange distal end, fine white setose; *tib* orange with dark red-brown to black distal end (more extensive on *tib* 3), white setose; *tar* black, white setose.

Abdomen: Terga black, shiny apruinose except for gold-silver lateral margins, fine white setose (short medially, long laterally). Sterna black, entirely silver pruinose, long fine white setose. Genitalia: Paratype illustrated (Figs 16–18): Hypopygium unrotated; *epand* (in dorsal view) deeply incised medially to form two acutely pointed lobes hardly joined basally; *goncx* externally distally unilobed, lobes of distinctive shape; *hypd* (in lateral view) of moderate length, not projecting distally beyond level attained by *goncx*, suddenly tapering (in ventral view) to a single medial laterally flanged process.

Variation: Sexes similar. Some variation in size appears noteworthy (e.g. four females collected on 19 April at Umgeni Valley display a wing-length range of 4.6–5.8 mm). A little variation in hypandrial shape occurs (see Fig. 19).

Type specimens: SOUTH AFRICA: 1♂ 1♀ **paratypes**, 'near Lilani [2907S 3051E] / Ahrens district / Natal, S. Africa / B. & P. Stuckenberg / April 1962', '*Holopogon* / *fugax* Loew / det. H. Oldroyd 1973'; 1♀ **paratype**, 'Sth Africa: KZ-Natal / Umgeni Valley Nat. Res. / Dwarf's Dawdle 870 m / 29°28'36"S 30°15'39" / 6.iv.1994 JGH Londt / Grassland & forest edge'; 4♀ **paratypes**, 'STH AFRICA: KZ-Natal / Umgeni Valley Nat. Res. / 29°28'43"S 30°15'39"E / 19 iv. 2005 JGH Londt / 969 m Black Eagle Trail / Swept *Aristida* grassland'; ♂ **holotype**, 4♂ 25♀ **paratypes**, 'STH AFRICA: KZ-Natal / Umgeni Valley Nat. Res. / 29°28'43"S 30°15'39"E / 28 iv. 2005 JGH Londt / 969 m Black Eagle Trail / Swept *Aristida* grassland' (1♂ 1♀ BMNH); 1♀ **paratype**, 'S. Africa: Natal #5 / 15 km NE of Howick / 2930Ac 1500 m / 5.v.1984 R. Miller / Karkloof Falls'; 1♀ **paratype**, 'South Africa: Natal / Nkandla Forest / 3108E 2843S 25.v.86 / P E Reavell 1200 m / Ngongoni veld'.

Distribution (Table 1), phenology (Table 2) and biology: Known from a few localities in KwaZulu-Natal (Fig. 78). The species flies during April and May. Little biological information is available except that the species inhabits *Aristida* dominated grassland. Females may greatly outnumber males in collections. A series of 6♂ and 29♀, that included the holotype and 1♂ 4♀ preserved in alcohol for future molecular studies (not considered paratypes and therefore excluded from the material listed above), constitutes material collected during an intensive two-hour sampling period. Males represented only 17% of the sample. Further collections are required to explain this apparent imbalance.

Similar species: Superficially similar to *fugax* but most similar to *anassa* and *argos* (see discussion).

Afroholopogon capensis (Lindner, 1961)

Figs 20–22, 61, 62, 78

Heteropogon capensis Lindner, 1961: 6, 7, abb. 3 (head); Oldroyd 1980: 362 (catalogue). Type locality: South Africa.
Holopogon tomentosus Oldroyd, 1974: 49 (in key); 1980: 362 (catalogue). Type locality: South Africa. **Syn. n.**
Afroholopogon capensis: Londt 1994: 64.
Afroholopogon tomentosus: Londt 1994: 64.

Redescription: Based on holotype.

Head: Antenna: Black, gold pruinose except for apruinose scape, black setose; segmental formula 1.0:0.8:2.9:0.2:1.3. Face black, gold-silver pruinose (weak in region of mystax), mystax strong, black dorsally yellow ventrally and ventrolaterally, extending over three-quarters of face (asetose just below antennae). Face width:head width ratio 1.0:4.4. Frons and vertex black, mostly shiny apruinose, dark red-brown to black setose, ocelli red. Occiput dark red-brown, silver pruinose, white setose (few short pale yellow setae dorsally). Proboscis and palpi dark red-brown to black, yellow setose.

Thorax: Mesonotum black, shiny apruinose except for the following silver-gold areas – lateral margin, fairly extensive area adjacent to postpronotal lobe, narrow strip anteriorly corresponding with position of acrostichal setae, broad posterior strip from posterior margin to just beyond transverse suture. Setation: *ac* – weak yellow anteriorly, longer postsuture; *dc* – long yellow; *npl* – 2–3 black (anteriorly) and yellow plus few minor setae; *sa* – 1–2 yellow plus many minor setae; *pa* – 2 yellow plus few minor setae. Scutellum black, largely shiny apruinose but weakly silver pruinose anterior and posterolateral margin, disc asetose, margin with 10 setae (7 black, 3 yellow). Pleura dark red-brown to black, almost entirely gold pruinose except for small apruinose areas on anepisternum, katepisternum and meron, sparsely yellow setose. Wing 5.3 x 2.3 mm, pale brown-yellow, microtrichia brown, covering almost entire membrane, basal angle of r_4 23°. Halter pale brown with yellow knob. Legs: *cx* dark red-brown, gold pruinose, yellow setose; trochanters dark red-brown; *fem* dark red-brown with red-brown distal tip, yellow setose (few black dorsodistally); *tib* orange, macrosetae black, setae yellow; *tar* red-brown, most setae black.

Abdomen: Terga black, shiny apruinose except for silver-gold lateral margins, setae dorsally small yellow longer laterally. Sterna dark red-brown, entirely dull gold pruinose, long fine yellow setose. Genitalia: Holotype not dissected and macerated, a specimen from Willowmore illustrated (Figs 20–22): Hypopygium rotated through about 180°; *epand* (in dorsal view) incised medially to form two moderately pointed lobes broadly joined basally; *goncx* externally distally bilobed, lobes of distinctive shape; *hypd* (in lateral view) elongate, projecting distally well beyond level attained by *goncx*, gradually tapering (in ventral view) to broadly clubbed medial process.

Variation: Sexes similar. Female genitalia illustrated (Figs 61, 62) for generic comparison with *Ischiolobos*. The species displays some variation. Many specimens are a little smaller than the holotype, setae are frequently white instead of yellow and pruinescence is silver rather than gold. The distribution and extent of mesonotal pruinescence shows variation which may be geographic.

Type specimens seen: SOUTH AFRICA: ♂ **holotype**, 2♀ **paratypes** (*capensis*), ‘Kapstadt [Cape Town 3355S 1825E] / 27.xi.-1.xii.1958 / Lindner leg.‘ ~ ’29.xi.’, ‘*Heteropogon* / *capensis* Lind. / Lindner det.’, holotype is labelled ‘Typus / Lindner / 1961 [sideways] [red ink]’ and paratypes ‘Paratypus / Lindner / 1961’ (SMNS). ♂ **holotype**, 1♀ **paratype** (*tomentosus*), ‘Elandsberg Mts South / of Cockscomb Peak / Patensie area / 1.12.67 3424DB [sic. 3324DB] / B&P Stuckenberg’.

Note: Lindner (1961) gives additional data for the *capensis* types, i.e. ‘(Kloof Neck – Lionhead)’, that does not appear on specimen labels. This information is likely to be correct as he personally collected the material. So I designate the type locality as Kloof Neck [3356S 1823E].

Other material studied: SOUTH AFRICA: 1♀, ‘South Africa / Bitterfontein [3102S 1817E] / 3.xii.1981 / J.G. Theron’; 3♂ 7♀, ‘S Africa: Cape #66 / 23 km S Vanrhynsdorp / 31°47'S:18°46'E 600 m / Date: 2–4.xi.1991 / Coll: J.G.H. Londt / Gifberg. Flat summit’; 1♂, ‘S Africa: Cape #67 / 24 km S Vanrhynsdorp / 31°46'S:18°48'E 600 m / Date: 3.xi.1991 / Coll: J.G.H. Londt / Gifberg. Flat summit’; 1♀, ‘Sth Africa: Cape Prov / Gifberg Pass summit / 16.xi.1986 3118DB / Londt & Quickelberge / 690 m Rocky macchia’; 1♀, ‘Sth Africa: Cape Prov / Nieuwoudtville Wild / Flower Res. 3119AC / Londt & Quickelberge / 690 m 16.xi.1986’; 2♂ 5♀, ‘S Africa: Cape #69 / 1 km W Nieuwoudtville / 31°23'S:19°06'E 800 m / Date: 4.xi.1991 / Coll: J.G.H. Londt / Caravan Park and area’; 2♀, ‘S Africa: Cape #34 / 2 km N Middelpos / 31°54'S:20°14'E 1250 m / Date: 29.xi.1990 / Londt & Whittington / Dry scrub on dam bank’; 1♂, ‘South Africa: W. Cape / 32 km ne. Clanwilliam / Brandewyn R. 3219AA / 2–3.x.1977 RM Miller’; 1♀, ‘East of / Pakhuis Pass [3208S 1900E] / C.P.’ ~ ‘Mus. Exp. / Sept. 1947’ (SAMC); 2♀, ‘RSA: Cape Prov. Koomplans- / kloof. 10 km S Citrusdal. / 200–270 m / 32°40'S. 19°01'E. / 04–08.x.1994 loc. 6 / leg. R. Danielsson’ (ZMLU); 4♂ 5♀, ‘S Africa: N Cape #28 / Besemgoedkop 31 km N / of Sutherland 1670 m / 32°11'21"S:20°36'03"E / 8.xi.1998 J&B Londt / Rocky ridge Macchia’; 1♂ 1♀, ‘Sth Africa: Cape Prov / Swartkop 31 km NW of / Sutherland 3220BA / Londt & Quickelberge / 18–19.xi.1986 1600 m / Rocks Woody macchia’; 4♂ 6♀, ‘S Africa: Cape #29 / 30 km NW Sutherland / 32°12'S:20°36'E 1600 m / Date: 27.xi.1990 / Whittington & Londt / Near Besemgoedkop’; 1♂ 3♀, ‘Moordenaars / Karoo / Lammerfontein [3258S 2049E] / C.P.’ ~ ‘Mus. Exped. / Oct. 1952’ (SAMC); 1♂, ‘Sth Africa: W Cape / Lion’s Head Nature Res / Kloofnek area 220 m / 33°56'29"S 18°23'10"E / 14.xii.2004 JGH Londt / Fynbos Stony path’; 1♀, ‘Stellenb. [Stellenbosch 3356S 1851E] / C.P. / 1888’, ‘*Heteropogon* / *peregrinus* Herm. / Cotype’ [grey] (SAMC); 4♂ 7♀, ‘Sth Africa: Cape Prov / Gydo Mtn. 24 km NE of / P. Alfred Ham. 3319AB / Londt & Quickelberge / 21.xi.1986 1150 m / Rocky area / Proteas’; 1♂ 1♀, ‘Wit River Valley / Bains Kloof [3337S 1906E] / C.P.’ ~ ‘Mus. Exp. / Dec. 1949’ (SAMC); 1♀, ‘Gt. Wint-hoek / Tulbagh [3317S 1909E] /4500 ft’ ~ ‘Nov. 1916 / Lightfoot’ (SAMC); 1♂, ‘S Africa: Cape #33 / Karoo Botanic Garden / 33°37'S:19°27'E 210 m / Date: 5.x.1993 / Coll: J.&A. Londt / Worcester – Macchia’; 3♂, ‘South Africa: Cape / 5 km W Robertson / 26.ix.1979 J. Londt / 3319DD stony slopes / with woody veget,’; 3♀, ‘18m. E. / of Touws R. [3320S 2002E] to / Hondewater’ ~ ‘12.1962. / S.A.M. (SAMC); 2♂ 1♀, ‘Klaarstroom [3320S 2032E] / Prince / Albert / C.P.’ ~ ‘Mus. Exped. / Oct. 1952’ (SAMC); 1♀, ‘Rooinek [3320S 2055E] / Laingsburg / Dist.’ ~ ‘Zinn-Hesse / Mus. Exp. / Jan. 1949’ (SAMC); 7♂ 3♀, South Africa: Cape / Montague Pass 5 km NE / Ashton 25.ix.1979 / 3320CC J.G.H. Londt / Steep rocky hillside’; 4♂, ‘Sth Africa Cape Prov / 20 km SE of Ashton / 3320CC 10.ix.1981 / J. Londt, L. Schoeman / and B. Stuckenberg / False Macchia Slopes’; 2♂ 1♀, ‘Sth Africa Cape Prov / Outskirts of Ashton / 3320CC 10.ix.1981 / J. Londt, L. Schoeman / and B. Stuckenberg / False Macchia Slopes’; 3♂ 2♀, ‘South Africa: Cape / Montagu 25.ix.1979 / 3320CC J.G.H. Londt / hillside SE of town’; 1♂ 1♀, ‘Tradouw Pass [3357S 2042E] / Swellendam Dist.’ ~ ‘Mus. Exped. / Nov. 1925’ (SAMC); 1♀, ‘Van Wyk’s Dorp [3344S 2128E] / Oct. 1937’ (SAMC); 1♂ 1♀, ‘Sth Africa: Cape Prov / Swartberg Pass 1250 m / 3322AC 10.xi.1986 / Londt & Quickelberge / N slopes/Proteas’; 2♂ 2♀, ‘Meirings Poort [3324S 2233E] / Oct. 1937’ (SAMC); 1♂ 1♀, ‘Spitzkop / Meirings Poort [3324S 2233E]’ ~ ‘Museum Staff / Jan. 1935’ (SAMC); 3♂ 11♀, ‘Sth Africa: Cape Prov / Meiringspoort 3322BC / 11–12.xii.1979 Londt / & Stuckenberg Rocky / hillside & stream edge’; 6♀, ‘Swartebergen / Prince Albert [3317S 2203E] Div.’ ~ ‘Mus. Staff / Nov. 1935’ (SAMC); 2♀, ‘Sth Africa: Cape Prov / Uniondale 3323CA / 12.xii.1979 J. Londt + B. Stuckenberg Steep / hillside macchia’; 1♀, ‘Uniondale [3340S 2308E] / Capland / Dr. Brauns. / 25 12 09’; 1♂ 1♀, ‘So. Africa: Cape Prov. / 1 km NE. Uniondale / 31.x.1978 3323CA / R. Miller & J. Londt / rocky hillside scrub’; 1♂, ‘So. Africa: Cape Prov. / 25 km W. Uniondale / 31.x.1978 3323CA / R. Miller & J. Londt’; 1♂, ‘Capland / Willowmore [3317S 2330E] / 1 12 1916 / Dr. Brauns’; 1♂ 4♀, ‘Capland / Willowmore / 20 11 1916 / Dr. Brauns’; 1♂ 5♀, ‘Capland / Willowmore / 25 11 1916 / Dr. Brauns’; 4♂ 1♀, ‘Capland / Willowmore / Nov. 1917 / Dr. Brauns’; 2♂, ‘Capland / Willowmore / 1 12 1917 / Dr. Brauns’; 3♂ 8♀, ‘So. Africa: Cape Prov. / 9 km SW. Willowmore / 30–31.x.1978 3323AD / J. Londt & R. Miller / open Karoo scrub’; 1♀, ‘South Africa / Strand [3407S 1850E] / 13.12.1941 / Ac.US. / A.C. Myburgh’; 2♂ 6♀, ‘Sth Afr. Western Cape / Fernkloof Nature Reserve / Hermanus 16–17.xii.2000 / 34°23'40"S:19°15'58"E / JGH Londt 90 m Natural / bush with many flowers’.

Distribution (Table 1), phenology (Table 2) and biology: Found mainly in the Fynbos and Succulent Karoo Biomes of the Western Cape (Fig. 78). The species flies from September to January and is frequently collected on rocky outcrops and large boulders.

Similar species: *A. melas* and *africanus*, but also *peregrinus* (see discussion).

Afroholopogon chirundu sp. n.

Figs 23–25, 77

Etymology: A noun in apposition based on the name of the type locality.

Description: Based on holotype.

Head: Antenna: Scape and pedicel orange-brown, rest dark brown, fine silver pruinose, white setose; segmental formula 1.0:1.0:3.6:0.4:2.1. Face bark red-brown, entirely strongly silver pruinose, mystax white, well developed ventrally weakly developed dorsally but extending almost to antennal sockets. Face width:head width ratio 1.0:4.8. Frons and vertex dark red-brown, strongly silver pruinose, tiny white setose. Occiput dark red-brown to black, silver pruinose, short white setose. Proboscis and palpi dark red-brown, white setose.

Thorax: Mesonotum dark red-brown, postpronotal and postalar lobes orange-brown, apruinose except for extensive silver parts as follows – board lateral margin, most of postpronotal lobe and adjacent areas, posterior margin which has an anteriorly directed strip that extends for a short distance past transverse suture. Setation: *ac* – white (long postsuture); *dc* – white (long postsuture); *npl* – 2 short yellow-white; *sa* – 1 weak white macroseta amongst white setae; *pa* – 1 weak white macroseta amongst white setae. Scutellum dark red-brown, largely silver pruinose but with central apruinose area, disc asetose, margin with approx. 8 fine white macrosetae. Pleura dark red-brown, silver pruinose except for bare area on katepisternum, long wavy white setose. Wing 5.1 x 2.1 mm, pale brown-yellow, microtrichia weak proximally moderately developed distally, basal angle of r_4 23°. Halter brown with mustard yellow knob. Legs: *cx* red-brown, silver pruinose, white setose; trochanters red-brown; *fem* brown-orange, white setose; *tib* brown-orange, mainly white setose (few black distoventrally); *tar* brown-orange, mixed black and white setose.

Abdomen: Terga dark red-brown, somewhat apruinose with silver areas becoming more extensive distally, white setose. Sterna dark red-brown, entirely silver pruinose, long white setose. Genitalia: Holotype not dissected, paratype ♂ illustrated (Figs 23–25): Hypopygium rotated through about 180°; *epand* (in dorsal view) deeply incised medially to form two distally slightly diverging and rounded lobes joined narrowly basally; *goncx* externally distally bilobed, lobes of distinctive shape; *hypd* (in lateral view) projecting distally beyond level attained by *goncx* and *epand*, gradually tapering (in ventral view) to a single broad medial and dorsally upturned (in lateral view) process.

Variation: Sexes similar. Variation is minimal. The female paratype, however, with a wing-length of 7.8 mm, is somewhat larger than the other specimens.

Type specimens: SOUTH AFRICA: 1♀ 1? **paratypes** 'Moorddrift [Siding 2417S 2857E]. / Oct., 1907 / C.J. Swierstra.'. ZIMBABWE: ♂ **holotype**, 1♂ **paratype**, 'Country: Rhodesia / Loc. Chirundu [1602S 2851E] / Date: 21-8-1965 / Coll R. Borthwick', '*Heteropogon* / sp. Nov. / det. H. Oldroyd 1973'.

Distribution (Table 1), phenology (Table 2) and biology: Known only from two widely separated localities (Fig. 77). The species flies from August to October (no records for September).

Similar species: Distinctive, but considered most similar to *fugax*, *tanystylos* and *xeros* (see discussion).

Afroholopogon dasys sp. n.

Figs 26–29

Etymology: Gr. *dasys* (hairy). Refers to the numerous setae along the scutellar margin.

Description: Based on holotype.

Head: Antenna: dark red-brown, fine gold-silver pruinose, pale yellow setose; segmental formula 1.0:1.0:2.9:0.1:1.2. Face black, entirely strongly silver pruinose, mystax pale yellow, extending to antennal sockets. Face width:head width ratio 1.0:4.3. Frons and vertex black, frons gold-silver pruinose vertex apruinose, pale yellow setose. Occiput dark red-brown, entirely gold-silver pruinose, pale yellow setose. Proboscis and palpi dark red-brown, pale yellow setose.

Thorax: Mesonotum black, gold pruinose except for extensive apruinose spots and stripes as follows – broad anterior stripes on either side of narrow medial pruinose strip that reach level of transverse suture, broad mediolateral band extending from, and including postpronotal lobe, to posterior margin (this apruinose band broken by narrow pruinose strip lying along transverse suture), setae longish with wavy tips. Setation: *ac* – fine pale yellow with wavy tips; *dc* – fine pale yellow with wavy tips (long postsuture); *npl* – 2 yellow; *sa* – 1 yellow; *pa* – 2 yellow. Scutellum black, entirely apruinose, disc asetose, margin with approx. 50 pale yellow setae arranged in 2–3 rows. Pleura black, silver-gold pruinose, pale yellow setose. Wing 3.9 x 1.7 mm, transparent, slightly yellow, microtrichia cover entire membrane, basal angle of r_4 20°. Halter light brown with yellow-brown knob. Legs: *cx* dark red-brown, weak gold-silver pruinose, pale yellow setose; trochanters black; *fem* dark red-brown with narrow brown-orange distal tip, pale yellow setose; *tib* orange-brown, pale yellow setose (few black ventrodistally); *tar* red-brown, dark red-brown setose.

Abdomen: Terga black, shiny apruinose except for silver-gold areas posterolaterally, pale yellow setose (longer laterally). Sterna dark red-brown, entirely silver-gold pruinose, long pale yellow setose. Genitalia of holotype not macerated but appearing to conform closely with the illustrated paratype (Figs 26–29): Hypopygium unrotated; *epand* (in dorsal view) short (shorter than distally projecting *proc*), shallowly incised to form short distolateral lobes; *goncx* externally distally unilobed and projecting (in lateral view) to a level beyond that reached by either *hypd* or *epand* (tip of left gonostylus broken off); *hypd* (in lateral view) of moderate length, slightly clavate distally and (in ventral view) tapering gradually to a truncate and slightly medially indented end.

Variation: Female similar to male but setae generally paler (white).

Type specimens: OMAN: ♂ **holotype**, ‘Dhofar 670 m. / Qara Hills [approx. 1700N 5345E] / North slopes / 22.9.1977 / K. Guichard’ (BMNH); 1♂ **paratype**, ‘Abdelkuri I: [‘Abd al Kuri 1219N 5222E] / North Shore / S. L. / 7.v.1967 / K. Guichard’ (BMNH). ERITREA: 1♀ **paratype**, ‘Eritrea: / W. Ancober / near Keren [1547N 3828E] / 8.x.1957 / D.J. Greathead.’ (BMNH).

Notes on localities: Gazeteers suggest that 'Dhofar' is the name of a province in Oman (but should be cited as 'Zufar'). As there is a mountainous area NW of Salalah, Oman, called Qara, it is assumed that the holotype was collected there. The name 'Abdelkuri' should apparently read 'Abd al Kuri' or 'Abd al-Kuri' and is apparently part of Yemen, not Oman as the label states.

Distribution (Table 1), phenology (Table 2) and biology: Known from a locality believed to be in Oman, the island of Abd al-Kuri lying beween Somalia and Socotra, and from a single locality in Eritrea. All these places border the Palaearctic Region. The specimens were collected in May, September and October. Biology unknown.

Similar species: *A. pardosoros* and *uranopia* (see discussion).

Afroholopogon fugax (Loew, 1858)

Figs 2, 30–32, 77

Holopogon fugax Loew, 1858: 350, 351 [1860: 166, 167]; Oldroyd 1974: 47, fig. 38 entire male; 1980: 362 (catalogue). Type locality: South Africa.

Afroholopogon fugax: Londt 1994: 64, figs 20–23 ♂ genitalia.

Redescription: Based on lectotype (a small specimen). Overall appearance as in Fig. 2 (Akkerendam ♂).

Head: Antenna: Dark red-brown, fine silver pruinose, white setose; segmental formula 1.0:1.2:4.6:0.2:2.0. Face dark red-brown, entirely strongly silver pruinose, mystax white, strong setae ventrally weaker dorsally but extending over entire face. Face width:head width ratio 1.0:4.9. Frons and vertex dark red-brown, weakly silver pruinose to shiny apruinose, white setose (long ocellars). Occiput dark red-brown, silver pruinose, white setose. Proboscis and palpi red-brown, white setose.

Thorax: Mesonotum dark red-brown to black, shiny apruinose except for narrow silver lateral and posterior margin. Setation: *ac* – long thin white; *dc* – long thin white; *npl* – 2 white; *sa* – 1 long white; *pa* – 1 long white. Scutellum dark red-brown to black, largely shiny apruinose except for narrow silver anterior margin, disc asetose, margin with 4 thin macrosetae accompanied by fine white setae arranged in two rows. Pleura dark red-brown, entirely weakly silver pruinose, white setose. Wing 3.4 x 1.4 mm, transparent (slightly milky appearance), microtrichia weak to absent, basal angle of r_4 32°. Halter pale brown with pale brown (dorsally) and white (ventrally) knob. Legs: *cx* dark red-brown, silver pruinose, white setose; trochanters dark red-brown; *fem* dark red-brown with narrow brown-yellow distal part, white setose; *tib* brown-yellow, white setose except for a few dark red-brown macrosetae distally; *tar* brown-yellow and white setose except for some dark red-brown macrosetae ventrally.

Abdomen: Terga dark red-brown, shiny apruinose except for narrow silver lateral margins that are more extensive posterolaterally, white setose (tiny setae medially, long setae laterally). Sterna mostly hidden due to curvature of terga, red-brown, silver pruinose, long white setose. Genitalia: Holotype not dissected, but agrees well with Willowmore ♂ illustrated (Figs 30–32): Hypopygium rotated through between 90–180°; *epand* (in dorsal view) deeply incised medially to form two pointed lobes joined narrowly basally; *goncx* externally distally bilobed, lobes of distinctive shape; *hypd* (in lateral view) gently curved and projecting distally beyond level attained by *goncx*, tapering rapidly (in ventral view) to elongated forked medial process.

Variation: Sexes similar. The lectotype male is one of the smallest specimens seen. The female paralectotype on the same pin is, however, of average size (wing-length

5.1 mm, width 2.0 mm). Both type specimens appear slightly teneral as most of the other specimens are black rather than dark red-brown in colour. Femora are usually black while tibiae are brown-orange. A little variation has been seen in the shape of the hypandrial fork, in that the length of the terminal fork may vary slightly.

Type specimens: SOUTH AFRICA: ♂ **lectotype**, 1♀ **paralectotype** (pinned one above the other), '104', '255', '*Holopogon* / *fugax*' (NHRS).

Notes: Oldroyd (1974) incorrectly gives the type repository as ZMHB. Loew (1858) described both male and female specimens without designating a type. In 1860 he elaborated on his descriptions, stating that the specimens had been found in copula, but again did not designate a type. These specimens must therefore be considered syntypes. As there are other species resembling *fugax*, it is essential to designate a lectotype; I hereby designate the male as lectotype and the female as paralectotype.

Although locality information is not cited on labels, Loew gives 'Caffraria (Wahlb.)' (1858) and '(Caffrerei, Wahlberg.)' (1860) as the origin of the specimens. This poses a problem. Wahlberg's route is well documented (Usher, 1972) and in no way overlaps with the known distribution of the species. I therefore designate a type locality where presence of the species has been well established – South Africa, Northern Cape, Akkerendam Nat. Res., 1 km N of Calvinia (3127S 1946E).

Other material studied: NAMIBIA: 1♂, 'Aus [2616CB] / Dec. 1924', 'S.W. Africa. / R.E. Turner. / Brit. Mus. / 1930-113.' (BMNH). SOUTH AFRICA: 1♀, '26 mls North / of Postmasburg [2819S 2304E]' ~ 'Mus. Staff / Oct. 1939' (SAMC); 1♀, 'Aggenys [2912S 1851E] or / Bushmanland / Btw Springbok / and Pella' ~ 'Mus. / Staff / Oct. 1939' (SAMC); 1♂, 'Knersvlakte [3115S 1845E]. North / of Van Rhynsdorp / South-West Cape / 6–9 October 1964 / B&P Stuckenberg'; 2♀, 'Sth Africa: Cape Prov / Hantamsberg summit / 15.xi.1986 3119BD / Quickelberge & Londt / 1600 m Rocky macchia'; 6♂ 7♀, 'S Africa: N Cape #31 / Akkerendam Nat. Res. / 1 km N of Calvinia 1260 m / 31°26'55"S:19°46'22"E / 9–10.xi.1998 JGH Londt / Karoo vegetation'; 8♂ 7♀, Sth Africa: N Cape / 12 km S of Calvinia / 31°34'10"S:19°43'56"E / 7.ix.2002 J.G.H. Londt / 1080 m Sandy roadside', 'Data correction / For ix read xi'; 2♀ 1?, 'Sth Africa: Cape Prov / 47 km E of Williston / 14.xi.1986 3121AB / Londt & Quickelberge / 1280 m Rocky scrubland'; 2♂, 'S Africa: Cape #27 / 15 km E of Sutherland / 32°23'S:20°48'E 1600 m / Date: 26.xi.1990 / Whittington & Londt / Valley nr Observatory'; 1♂, 'Tankwa Karoo / Waterval [3235S 2025E] / C.P.' ~ 'Mus. Exped. / Nov. 1952' (SAMC); 2♂ 2♀, 'Capland / Willowmore [3317S 2330E] / 20.11.1916 / Dr. Brauns.'; 1♂, 'Capland / Willowmore / Dec. 1 1916 / Dr. Brauns.'; 1♀, 'Capland / Willowmore / 25.11.1916 / Dr. Brauns.'; 1♂, 'Capland / Willowmore / 1.12.1916 / Dr. Brauns.'; 1♂, 'Capland / Willowmore / 5.12.1916 / Dr. Brauns.'; 1♂, 'Resolution [3318S 2632E] / Albany Distr / 17.10.1927 / A. Walton'.

Other material recorded: Oldroyd (1974) gives 'Willowmore (Brauns), Resolution, Albany Dt. (Walton), S.W. Africa: Seeheim (van Son). TRANSVAAL: Kruger National Park (Potgieter & Strydom)'. The specimens from Willowmore and Resolution are probably correctly identified. The Kruger National Park material is likely, however, to represent another species. Oldroyd's (1974) drawing (his fig. 38) does not agree with *fugax* and is likely to represent a male from Seeheim as it agrees well with *xeros* described below.

Distribution (Table 1), phenology (Table 2) and biology: Fairly widely distributed in the south-western parts of South Africa. Found mainly in the Succulent Karoo and Nama-Karoo biomes (Fig. 77). The species flies from October to December. Specimens have been collected among low woody plants in fairly arid areas.

Similar species: Superficially similar to *argos* and *aspros*, but considered most similar to *chirundu*, *tanystylos* and *xeros* (see discussion).

Afroholopogon mauros sp. n.

Figs 33–35, 79

Etymology: Gr. *mauros* (dark). Refers to the generally dark colour of this small species.

Description: Based on holotype.

Head: Antenna: Dark red-brown, fine silver pruinose, white setose; segmental formula 1.0:1.2:2.8:0.3:2.5. Face black, strongly silver pruinose, mystax white, strong setae along epistomal margin, otherwise short. Face width:head width ratio

1.0:4.6. Frons and vertex black, extensively silver pruinose but with an apruinose strip joining eyes through ocellar tubercle, white setose. Occiput black, entirely silver pruinose, white setose. Proboscis dark red-brown, white setose. Palpi red-brown, white setose.

Thorax: Mesonotum black, silver pruinose except for 3 small mediolateral apruinose spots, one anterior of transverse suture, two postsuture (the most posterior one may be tiny or hardly evident). Setation: *ac* – fine white setae, long postsuture; *dc* – long white setae along entire length of mesonotum; *npl* – 2 pale yellow; *sa* – 1 weak white amongst white setae; *pa* – 1 weak white amongst white setae. Scutellum black, entirely silver pruinose, disc asetose, margin with 6 thin pale yellow setae and white setae that extend onto disc. Pleura black, entirely silver pruinose, white setose. Wing 3.8 x 1.5 mm, transparent membrane with yellow veins, microtrichia absent, basal angle of r_4 27°. Halter pale brown with yellow knob. Legs: *cx* black, silver pruinose, white setose; trochanters black; *fem* dark red-brown, white setose; *tib* dark red-brown, white setose (a few dark red-brown setae distally); *tar* dark red-brown, black setose.

Abdomen: Terga dark red-brown, silver pruinose except for apruinose mediodistal parts, white setose. Sterna dark red-brown, entirely silver pruinose, white setose. Genitalia: Holotype not dissected, but agrees well with topotypic paratype ♂ illustrated (Figs 33–35): Hypopygium unrotated; *epand* (in dorsal view) moderately incised to form broadly basally fused distally pointed lobes; *goncx* externally distally unilobed and projecting (in lateral view) beyond level attained by *epand*; *hypd* (in lateral view) short and not projecting distally beyond level attained by *epand*, tapering gradually (in ventral view) to broadly-rounded medial process.

Variation: Sexes similar. Little variation seen. Specimens from the western parts of the known distribution (Northern Cape of South Africa and Namibia) have more extensively apruinose mesonotal areas.

Type specimens: BOTSWANA: 6♂ 2♀ **paratypes**, 'Botswana / Serowe [2223S 2643E] / M.T. 6.xi.87'; 8♂ **paratypes**, 'Botswana / Serowe / M.T. 6.xii.87' (1♂ BMNH); 3♀ **paratypes**, 'Botswana: Serowe #56 / Farmer's Brigade / 22°25'S:26°44'E 1000 m / Date: 28.xi.1990 / Coll: P. Forchhammer / Malaise Trap'; 1♀ **paratype**, 'Botswana SE2226BD / Forestry nursary. / ca. 6 km SE of Se- / rowe. Malaise trap 3 / Forchhammer. 1300 m. / 27-xi-84'; 2♀ **paratypes**, 'Botswana SE2226BD / Farmers Brigade 5 kms / SE of Serowe Hillside / N slope P. Forchhammer / 30-xi-84 / Malaise trap 2 / Mercury vapour lamp'. NAMIBIA: 1♀ **paratype**, 'Namibia 28.iii.1984 / 15 km W Usakos. Rd 2/2 / 21 59'S:15 30'E / Londt & Stuckenberg / Roadside vegetation – / flowers.'. SOUTH AFRICA: 1♀ **paratype**, 'Soutpan [2258S 2920E], Zpbg. / 15–30 Nov. 1932 / G. van Son'; ♂ **holotype**, 5 ♂ 4♀ **paratypes**, 'mounted / from alcohol', 'S. Africa: Transvaal / Ellisras [2340S 2744E] / Malaise trap / 22.xi.1978 / Brothers & J-Guillarmod'; 1♀ **paratype**, 'South Africa: N Cape / *Ca.* 5 km E Augrabies Falls / National Park's main gate / 28°37.284'S 020°16.576'E / 670 m J Londt & T Dikow / 4.ii.2004 *Acacia* savanna'; 3♂ 4♀ **paratypes**, 'South Africa: N Cape / Tierberg Nature Reserve / 28°43.012'S 020°59.805'E / 830 m J Londt & T Dikow / 5.ii.2004 Rocky, sparsely / vegetated exposed hillside'.

Distribution (Table 1), phenology (Table 2) and biology: Known from a few fairly widely separated localities within the Savanna Biome (Fig. 79). The species flies from November to March (no records for January). Material collected by me was swept from grass.

Similar species: A distinctive species with similarities to *anassa*, *argos*, *aspros*, *meilloni* and *vumba* (see discussion).

Afroholopogon meilloni (Oldroyd, 1974), **comb. n.**

Figs 36–38, 79

Rhabdogaster meilloni Oldroyd, 1974: 67 (in key), fig. 61 male genitalia. Type locality: South Africa (Londt 1993: 391).

Redescription: Based on holotype.

Head: Antenna: Dark red-brown, fine silver pruinose, black setose; segmental formula 1.0:0.9:3.3:0.5:1.6. Face black, entirely silver-gold pruinose, mystax black covering about 70% of face (setae absent dorsally). Face width:head width ratio 1.0:4.5. Frons and vertex dark red-brown, entirely red-gold pruinose, long dark red-brown setose. Occiput dark red-brown, silver pruinose, white setose (few dark red-brown dorsally). Proboscis red-brown, white setose. Palpi orange-brown, *plp* 1 white, *plp* 2 red-brown setose.

Thorax: Mesonotum black postpronotal and postalar lobes brown-orange, red-gold pruinose with apruinose postpronotal lobes, medial stripes and mediolateral spots. Setation: *ac* – fine long dark red-brown; *dc* – fine long dark red-brown; *npl* – 2 moderate dark red-brown; *sa* – 1 long thin dark red-brown; *pa* – fine long dark red-brown. Scutellum black, largely shiny apruinose tiny gold pruinose area anterolaterally, disc asetose, margin with 5 thin dark red-brown setae. Pleura brown-orange, entirely gold-silver pruinose except for small apruinose spot on katepisternum, sparse pale yellow setose except for long thin dark red-brown katatergals. Wing 5.1 x 1.6 mm, membrane slightly yellow-brown, microtrichia red-brown, covering entire membrane, basal angle of r_4 13°. Halter pale brown with brown-rimmed white knob. Legs: *cx* brown-orange, silver pruinose, white setose; trochanters brown-orange; *fem* brown-orange, *fem* 1 brown-orange with dark red-brown ventrally, *fem* 2 dark red-brown with brown-orange dorsally and apically, fine white setose; *tib* brown-orange (*tib* 1–2), red-brown (*tib* 3), macrosetae black, setae fine yellow; *tar* brown-orange, macrosetae black, setae black and yellow.

Abdomen: Terga dark red-brown with brown-orange posterolateral parts, shiny apruinose except for narrow silver lateral margins, small fine dark red-brown setose dorsally longer white setose laterally. Sterna brown-orange, entirely gold pruinose, long fine white setose. Genitalia: Holotype ♂ illustrated (Figs 36–38): Hypopygium unrotated; *epand* (in dorsal view) deeply incised to form basally fused acutely pointed lobes; *goncx* externally distally unilobed and projecting (in lateral view) beyond level attained by either *epand* or *hypd*; *hypd* (in lateral view) moderately long and projecting distally beyond level attained by *epand*, tapering rapidly (in ventral view) to trifurcate medial process where central element is elongate and distally slightly club-shaped.

Variation: Sexes similar. Little can be said as there are only two known specimens.

Type specimens (seen): SOUTH AFRICA: ♂ **holotype**, 1♀ **paratype** (*meilloni*) 'Small bush, forest edge. / Eshowe [2853S 3128E] – Zululand. / Coll: (B. DeM). [Botha de Meillon] / 9.6.37. Coll: 1660', '*Rhabdogaster* / *meilloni* sp. n. / det. H. Oldroyd 1972 / HOLOTYPE' (BMNH).

Note: It is interesting to note that even after carefully drawing attention to the importance of a metacoxal bridge in defining *Rhabdogaster*, Oldroyd (1974) misplaced this species which clearly possesses a membranous postmetacoxal area.

Distribution (Table 1), phenology (Table 2) and biology: Known only from the type locality in KwaZulu-Natal (Fig. 79), and collected only in June.

Similar species: *A. vumba* (see discussion).

Afroholopogon melas sp. n.

Figs 39–41, 79

Etymology: Gr. *melas* (black). Refers to the dominant colour of this species.

Description: Based on holotype.

Head: Antenna: Black, fine silver pruinose, black setose; segmental formula 1.0:0.7:2.6:0.2:0.9. Face black, silver pruinose except for mystacal area, mystax black, strong, extending almost to antennal sockets. Face width:head width ratio 1.0:4.4. Frons and vertex black, shiny apruinose, black setose. Occiput black, silver pruinose, black setose. Proboscis dark red-brown, brown setose. Palpi dark red-brown, black setose.

Thorax: Mesonotum black, shiny apruinose except for narrow silver lateral margin and extensive area postsuture. Setation: *ac* – fine black setae mostly postsuture; *dc* – fine black setae mostly postsuture; *npl* – 2 black; *sa* – 1 black; *pa* – 2 fine black. Scutellum black, largely shiny apruinose with silver anterior and posterolateral margins, disc asetose, margin with approx. 7 thin black setae. Pleura black, fine silver-gold pruinose except for bare areas on anepisternum, katepisternum and meron, sparsely black setose. Wing 5.8 x 2.3 mm, light brown, microtrichia brown, covering membrane extensively, basal angle of r_4 21°. Halter dark red-brown with orange-yellow knob. Legs: *cx* black, fine red-gold pruinose, black setose; trochanters black; *fem* black distal tips red-brown, black setose (some fine orange setae); *tib* orange, black setose; *tar* dark red-brown, black setose.

Abdomen: Terga black, shiny apruinose except for narrow silver lateral margins, black setose. Sterna black, fine red-gold pruinose, long black setose. Genitalia: Holotype not dissected, topotypic paratype ♂ illustrated (Figs 39–41): Hypopygium rotated through between 90–180°; *epand* (in dorsal view) incised to approximately half length to form broadly basally fused distally rounded lobes; *goncx* externally distally broadly bilobed and projecting (in lateral view) beyond level attained by *epand*; *hypd* (in lateral view) long and projecting distally well beyond levels attained by *epand* and *goncx*, tapering gradually (in ventral view) to slightly club-shaped medial process; medial process (in lateral view) with distinctive dorsally directed subapical scoop-shaped process.

Variation: Sexes similar. Specimens show no variation of note.

Type specimens: SOUTH AFRICA: ♂ **holotype**, 2♂ 9♀ **paratypes**, 'Sth Africa: Cape Prov / Franschhoek Pass / 3319CC [3354S 1909E] 21.xi.1986 / Londt & Quickelberge / Grass & macchia on / summit of pass 800 m' (1♀ BMNH).

Distribution (Table 1), phenology (Table 2) and biology: Known only from the type locality (Fig. 79) and collected only during November. The species apparently occurs sympatrically with *africanus*, but they may fly at slightly different times of summer (*melas* a little earlier in the season).

Similar species: *A. capensis* and also *africanus* and *peregrinus* (see discussion).

Afroholopogon pardosoros sp. n.

Figs 42–44, 78

Etymology: Gr. *pardos* (leopard) and *oros* (mountain). Refers to the type locality of Tierberg (Dutch – Leopard Mountain).

Description: Based on holotype.

Head: Antenna: Dark red-brown (style slightly paler), silver pruinose, strongly white setose; segmental formula 1.0:1.1:1.8:0.2:1.8 (i.e. relatively short postpedicel). Face black, entirely strong silver pruinose, mystax with short, strong white setae extending to antennal sockets. Face width:head width ratio 1.0:5.2. Frons and vertex black, colour masked by strong silver pruinescence, white setose. Occiput black, silver pruinose except for two apruinose areas either side of vertex that extend onto occiput, white setose. Proboscis and palpi dark red-brown, white setose.

Thorax: Mesonotum black, shiny apruinose except for silver convoluted lateral and posterior margins and narrow median stripe. Setation: *ac* – long white postsuture; *dc* – long white postsuture; *npl* – 3 strong yellow; *sa* – 1 long yellow; *pa* – 2 long yellow-white. Scutellum black, largely shiny apruinose but with silver pruinose anterior margin and broad median band, disc asetose, margin with approx. 30 well developed white setae. Pleura black, gold-silver pruinose except for apruinose spots on anepisternum, katepisternum and meron, long white setose. Wing 4.6 x 1.9 mm, veins dark red-brown and brown-orange, membrane transparent, microtrichia mostly absent, basal angle of r_4 27°. Halter pale brown with pale yellow knob. Legs: *cx* dark red-brown, silver pruinose, white setose; trochanters dark red-brown; *fem* dark red-brown with orange-brown tips, white setose (some strong setae); *tib* brown-orange, white setose; *tar* dark red-brown, white and black setose.

Abdomen: Terga black, gold-silver pruinose except for some bare areas anterolaterally and posteromedially on tergites, white setose. Sterna similar to terga but without apruinose areas. Genitalia: ♂ holotype illustrated (Figs 42–44): Hypopygium unrotated; *epand* (in dorsal view) poorly developed, not incised to form lobes (posterior margin gently concave), *proc* well-developed and projecting well beyond level attained by either *goncx* or *hypd*; *goncx* externally distally weakly bilobed and projecting (in lateral view) beyond level attained by *epand*. Aedeagus (in lateral view) elongate projecting beyond level attained by *hypd*; *hypd* (in lateral view) robust, elongate, gradually tapering distally to moderately pointed medial process.

Variation: The holotype male is then only known specimen.

Type specimens: SOUTH AFRICA: ♂ **holotype**, 'South Africa: N Cape / Tierberg Nature Reserve / 28°43.012'S 020°59.805'E / 830 m J Londt & T Dikow / 5.ii.2004 Rocky, sparsely / vegetated exposed hillside'.

Distribution (Table 1), phenology (Table 2) and biology: Known only from the type locality (Fig. 78), collected only during February. Biology unknown. This species and *mauros* occur sympatrically.

Similar species: *A. dasys* and *uranopia* (see discussion).

Afroholopogon peregrinus (Engel, 1929)

Figs 45–47, 79

Heteropogon peregrinus Engel, 1929: 168; Oldroyd 1974: 44 (figs 34 postmetacoxal area, 36 entire male); 1980: 362 (catalogue). Type locality: South Africa.
Afroholopogon peregrinus: Londt 1994: 64, figs 17, 18.

Redescription: Based on lectotype.

Head: Antenna: Dark red-brown, fine red-gold pruinose, dark red-brown setose; segmental formula 1.0:1.0:3.3:0.3:1.4. Face black, entirely silver pruinose, mystax with strong setae along epistomal margin, black medially pale yellow laterally, central setae weak, small, red-brown, extending almost to antennal sockets. Face width:head width ratio 1.0:4.6. Frons and vertex dark red-brown, mostly shiny apruinose, fine red-brown and brown-yellow setose. Occiput dark red-brown, silvery pruinose, white setose (few short pale yellow setae dorsally). Proboscis dark red-brown, white setose. Palpi dark red-brown, *plp* 1 white, *plp* 2 yellow-brown setose.

Thorax: Mesonotum black, shiny apruinose except for silver lateral and posterior margins (posterior pruinosity extends as a narrow strip to level of transverse suture. Setation: *ac* – tiny weak yellow-white; *dc* – tiny weak yellow-white; *npl* – 2 moderate brown-yellow; *sa* – 1 weak brown-yellow; *pa* – tiny weak yellow-white. Scutellum dark red-brown, largely shiny apruinose except for anterolateral parts, disc asetose, margin with approx. 6 thin yellow setae. Pleura dark red-brown, entirely silver pruinose (anepisternum somewhat red-gold) except for apruinose spot on katepisternum, sparsely white setose. Wing 5.6 x 2.3 mm, pale brown, microtrichia red-brown, covering entire surface, basal angle of r_4 19°. Halter pale brown with brown-yellow knob (right halter broken). Legs: *cx* dark red-brown, silver pruinose, yellow-white setose; trochanters dark red-brown; *fem* dark red-brown dorsally brown-orange ventrally, fine yellow-white setose; *tib* brown-orange dorsally dark red-brown ventrally, macrosetae black, setae yellow-white; *tar* dark red-brown, macrosetae black, setae predominantly red-brown.

Abdomen: Terga black, shiny apruinose except for narrow silver lateral margins, small fine dark red-brown setose. Sterna black, entirely dull silver pruinose, long fine dark red-brown setose. Genitalia: ♂ holotype not dissected and macerated. Topotypic ♂ illustrated (Figs 45–47): Hypopygium rotated through about 180°; *epand* (in dorsal view) fully incised to form two lobes not clearly fused basally; lobes shorter than *goncx* and tapering to pointed apices; *goncx* externally distally bilobed and projecting (in lateral view) beyond level attained by *epand*; *hypd* (in lateral view), elongate, curved, gradually tapering (in ventral view) to rounded medial process.

Variation: Sexes similar. Individual variation minimal.

Type specimens (seen): SOUTH AFRICA: ♂ **lectotype** ‘Engel / 14’, ‘Capland / Willowmore [3317S 2330E] / 15.xi.1919 / Dr. Brauns’, ‘♂’, ‘Sammlung / E. Engel’, ‘Cotype von ♂ / *Heteropogon* / *peregrinus* E.’ [red] (ZSMC); 1♀ **paralectotype** ‘Sammlung / E. Engel’, [blank red label], ‘Capland / Willowmore / 15.xi.1919 / Dr. Brauns’, ‘*Heteropogon* ♀ / *peregrinis* Eng.’ (ZSMC); 1♂ **paralectotype** ‘Grahams / Town’ [3318S 2632E], ‘Sammlung / F. Hermann’, ‘Cotype von / *Heteropogon* / *peregrinis* Engel’ [red], ‘*peregrinus* / Engel’ [blue], ‘Capland / *Heteropogon* / *peregrinus* / Type ♂ Hrm’ [pale pink] (ZSMC).

Note: Oldroyd (1974) says ‘Type in Pretoria’. This is incorrect. Engel (1929) did not designate a holotype. His list of specimens clearly indicates that the three specimens in ZSMC were the only ones available at the time of description. They are therefore correctly considered cotypes or syntypes. As they come from two localities it is considered appropriate to designate a lectotype. The male from Willowmore is in excellent condition and is selected as lectotype, the other specimens are paralectotypes.

Other material studied: SOUTH AFRICA: 1♀, ‘Sth Africa: Cape Prov / Klein Visrivier – ca. / 10 km W Somerset East / 32°44'S:25°30'E 800 m / J&H Londt 6.xii.1989 / Rocky ridge & stream’; 1♂, ‘Matroosberg [3323S 1940E] Sta.’ ~ ‘12.1962, / S.A.M.’ (SAMC); 1♂, ‘Sth Africa: Cape Prov / 18 km NE Touwsrivier / Jan de Boers 3320AC / Londt & Quickelberge / 20.xi.1986 1000 m / Rocky area nr fields’; 1♀, ‘7 Weeks Poort [Seven Weeks Poort 3322S 2125E] Berg / Ladismith, Cape. / 5500-7000 ft’ ~ ‘K.H. Barnard / Dec. 25-31 / 1928’ (SAMC); 1♂ ‘Cloetes Pass [3357S 2147E] / Oct. 1937’ (SAMC); 2♀, ‘Sth Africa: Cape Prov. / Meiringspoort 3322BC / 11.xii.1979 Londt / & Stuckenberg Rocky / hillside & stream edge’; 1♂, ‘Sth Africa: Cape Prov. / Diepkloof CA 20 km E / De Rust 3322BD / 12.xii.1979 J. Londt / & B. Stuckenberg Dry / rocky hillside & stream’; 2♂, ‘Willowmore [3317S 2330E] / Capland / Dr. H. Brauns. / 11.1917’, ‘Engel / 14’ [1♂ only]; 1♂ 1♀, ‘Capland / Willowmore / 1.12.1916 / Dr. Brauns’, ‘*Heteropogon* / *peregrinus* Engel / det. H. Oldroyd 1972’ [on 8M only]; 1♂, ‘Capland / Willowmore / 08.10.1916 / Dr. Brauns’; 1♂, 'Capland / Willowmore / 08.10.1916 / Dr. Brauns'; 1?, 'Capland / Willowmore / 10 Oct 1916 / Dr. Brauns'; 1♂ 2♀, 'Capland / Willowmore / 16.11.1916 / Dr. Brauns'; 2♀, 'Capland / Willowmore / 20.11.1916 / Dr. Brauns'; 1♂, 'Capland / Willowmore / 25.11.1916 / Dr. Brauns'; 1♂ 1♀, 'Sth Africa: Cape Prov. / Prince Alfred Pass / Summit 11.xii.1979 / 3323CC / Stuckenberg & / Londt Old lands'; 1♂, 'Papiesfontein [3358S 2459E] / Gamtoos Mth,' ~ 'S.A.M. / 1 : 60' (SAMC); 2♂ 10♀, 'Otterford Forestry / Reserve / Hankey area / 1–10.12.67 3325CC / B&P Stuckenberg'; 1♀, 'Cape Province / Grahamstown [3318S 2632E] / 7.i.1978 / J.G.H. Londt'; 1♀, 'South Africa. / Cape Province / Cradock Rd / Grahamstown / 14.viii.1959 / D.J. Greathead' (BMNH); 4♀, 'Garcias [approx. 3400S 2115E] / Forestry C. P. / Nov. 1940 / G. van Son'; 1♂ 1♀, 'Sth Africa: Cape Prov. / Knysna Heads (N side) / 9–10.xii.1979 3423AA / Londt & Stuckenberg / Open hillside grass'; 2♂, 'Sth Africa: Cape Prov. / Brenton on Sea 3423AA / 10.xii.1979 J. Londt / & B. Stuckenberg Dune / & hillside vegetation'.

Distribution (Table 1), phenology (Table 2) and biology: Known from the southern parts of South Africa (Fig. 79). The species flies from August to January (no September records exist), and has been swept from grass.

Similar species: *A. africanus*, but also *capensis* and *melas* (see discussion).

Afroholopogon tanystylos sp. n.

Figs 48–50, 78

Etymology: Gr. *tany* (long) and *stylos* (pillar, column). Refers to the elongate antennal style.

Description: Based on holotype.

Head: Antenna: black, distal half of style yellow-brown, fine silver pruinose, white setose; segmental formula 1.0:1.0:2.0:0.3:2.5 (long style). Face black, entirely strongly silver pruinose, mystax strong white, extending almost to antennal sockets. Face width:head width ratio 1.0:4.3. Frons and vertex black, entirely silver pruinose, weak white setose. Occiput black, gold-silver pruinose (weak behind ocellar tubercle), white setose (long dorsally). Proboscis and palpi dark red-brown, white setose.

Thorax: Mesonotum black, extensively gold-silver pruinose except for pair of apruinose anteromedial stripes and two big mediolateral apruinose spots (one anterior of suture, one postsuture). Setation: *ac* – small white; *dc* – short white (longer postsuture); *npl* – 2 white; *sa* – 1 white (with smaller setae); *pa* – 1 white (with smaller setae). Scutellum black, almost entirely gold-silver (except for tiny lateral spot), disc asetose, margin with 8 white setae. Pleura black, entirely gold-silver pruinose, white setose. Wing 3.4 x 1.4 mm, transparent, unstained, microtrichia largely absent, basal angle of r_4 23°. Halter light brown with pale yellow knob. Legs: *cx* black, gold-silver pruinose, white setose; trochanters black; *fem* black with narrow brown-orange distal tip, white setose; *tib* orange with dark red-brown distal end, white setose; *tar* dark red-brown, dark red-brown setose.

Abdomen: Terga black, shiny apruinose except for broad distal gold-silver bands, tiny white setae (long on T1–2). Sterna dark red-brown, entirely silver pruinose, tiny yellow setose. Genitalia of holotype not macerated but appearing to conform closely with the illustrated paratype (Figs 48–50): Hypopygium rotated through about 180°; *epand* (in dorsal view) a little longer than *hypd*, deeply incised to form elongate lobes that project well beyond level attained by *goncx*; *goncx* externally distally bilobed and projecting (in lateral view) to a level just beyond half the length attained by *epand*; *hypd* (in lateral view) long, upturned at about mid length and (in ventral view) tapering rapidly before diverging and forming a trilobed distal process of complex structure.

Variation: Little variation is evident within the small sample available.

Type specimens: SOUTH AFRICA: ♂ **holotype**, 1♂ 1♀ **paratypes**, 'South Africa: N Cape / *Ca*. 5 km E Augrabies Falls / National Park's main gate / 28°37.284'S 020°16.576'E / 670m J Londt & T Dikow / 4.ii.2004 *Acacia* savanna'.

Distribution (Table 1), phenology (Table 2) and biology: Known only from the type locality (Fig. 78). The specimens were swept from sparse, long grass in February.

Similar species: Difficult to confuse with any other species, but considered most similar to *chirundu*, *fugax* and *xeros* (see discussion).

Afroholopogon uranopia sp. n.

Figs 3, 51–53, 78

Etymology: Gr. *ouranos* (heaven, sky) and *opia* (pertaining to sight). Refers to the shape of the eyes which appear to be tilted toward the sky.

Description: Based on holotype.

Head: Antenna: Black, fine silver pruinose, brown macrosetae (few) and fine white setae; segmental formula 1.0:1.0:2.9:0.3:1.1; antennal sockets set low on head (i.e. they lie below an imaginary line connecting widest points across head in anterior view). Face black, apruinose except for narrow silver pruinose lateral strips, mystax white, extending over ventral half of face (dorsal part asetose). Face width:head width ratio 1.0:6.0 (i.e. face narrow). Eyes appearing to be tilted backwards (Fig. 3, ♂ from Graaff-Reinet). Frons and vertex black, mostly shiny apruinose, white setose. Occiput black, silver pruinose, white setose. Proboscis red-brown, white setose. Palpi dark red-brown, white setose.

Thorax: Mesonotum black, shiny apruinose except for narrow silver lateral margin and narrow band from posterior margin to just anterior of transverse suture. Setation: *ac* – few fine white; *dc* – few fine white; *npl* – 2 dark brown; *sa* – 1 long yellow-white; *pa* – 2 weak yellow-white. Scutellum black, largely shiny apruinose but with weakly silver pruinose anterior margin, disc asetose, margin with approx. 20 thin white setae. Pleura black, silver pruinose except for apruinose areas on anepisternum, katepisternum and meron. Wing 2.9 x 1.1 mm, transparent, microtrichia largely absent, basal angle of r_4 19°. Halter dark brown with yellow-white knob. Legs: *cx* black, silver pruinose, white setose; trochanters dark red-brown; *fem* dark red-brown with orange-brown distal tips, white setose; *tib* orange-brown with red-brown distal ends, white setose; *tar* red-brown, white and black.

Abdomen: Terga black, shiny apruinose except for silver lateral margins, setae tiny black and longer white. Sterna dark red-brown, silver pruinose except for a triangular area on each segment, white setose. Genitalia: ♂ holotype not dissected and macerated, topotypic paratype ♂ illustrated (Figs 51–53): Hypopygium unrotated; *epand* (in dorsal view) elongate, distal margin concave and broadly bilobed; *proc* well developed and projecting well beyond *epand*; *goncx* externally distally bilobed and projecting (in lateral view) beyond levels attained by *epand* and *hypd*. Aedeagus elongate, downward curved and projecting beyond all other structures; *hypd* (in lateral view), short, gradually tapering (in ventral view) to broadly truncate distal margin.

Variation: Individual variation within sexes is minimal. Some sexual dimorphism is evident in that mesonotal and abdominal pruinescence of females is much more extensive, of complex arrangement and mainly golden in appearance. Female eyes are not as obviously anterodorsally flattened as seen in males.

Type specimens: SOUTH AFRICA: ♂ **holotype**, 9 ♂ 8♀ **paratypes**, 'S Africa: Eastern Cape / Graaff-Reinet 760 m / Urquhart Caravan Park / 32°14'16"S 24°31'42"E / 26–28.x.2004 J&A Londt / Succulent rocky slopes' (1♂ 1♀ BMNH); 1♂ 2♀ **paratypes**, 'Sth Africa: Cape Prov / Karoo Nature Reserve / West of Graaff Reinet / 32°14'S 24°29'E 900 m / J&H Londt Rocky slope / Savannah 7–8.xii.1989'; 1♀ **paratype**, 'Sth Africa: Cape Prov / Graaff-Reinet / Urquhart Park Caravan / Park 4–6.xii.1988 / 32°15'S 24°33'E / J G H Londt Riverine / veget. Sandy ground'.

Distribution (Table 1), phenology (Table 2) and biology: Found only in the Graaff-Reinet area of Eastern Cape (Fig. 78). The species flies from October to December (no records for November). All specimens were found resting on large smooth boulders on east-facing slopes.

Similar species: *A. dasys* and *pardosoros* (see discussion).

Afroholopogon vumba (Oldroyd, 1974)

Figs 4, 54–57, 77

Holopogon vumba Oldroyd, 1974: 47 (in key); 1980: 362 (catalogue). Type locality: Zimbabwe.
Afroholopogon vumba: Londt 1994: 63, figs 1, 2 head, 3 wing, 4 metathoracic leg, 23–25 ♂ genitalia.

Redescription: Based on holotype.

Head: Antenna: Dark red-brown (tip of style and sensillum orange), fine silver pruinose, black setose; segmental formula 1.0:1.1:3.4:0.4:1.8. Face black, entirely silver-gold pruinose, mystax black, extending almost to antennal sockets. Face width:head width ratio 1.0:4.2. Frons and vertex black, extensively shiny apruinose but red-gold pruinose frons, black setose. Occiput black, silver pruinose, white setose. Proboscis red-brown, white setose. Palpi: *plp* 1 orange with white setae, *plp* 2 brown with dark red-brown setae.

Thorax: Mesonotum black, postpronotal and postalar lobes orange-brown, extensively shiny apruinose except for silver-gold parts as follows – lateral margin, anterior area adjacent to postpronotal lobe, and posterior area extending from margin anteriorly to just posterior of transverse suture. Setation: *ac* – fine red-brown; *dc* – fine red-brown; *npl* – 2 short black; *sa* – 1 thin long black; *pa* – few fine black. Scutellum black, largely shiny apruinose except for silver-gold anterior margin, disc asetose, margin with approx. 7 fine long black setae. Pleura predominantly orange-brown but with red-brown parts, gold-silver pruinose except for apruinose area on katepisternum, sparsely white setose. Wing (Fig. 4) 6.7 x 2.2 mm, transparent with slight yellow staining, microtrichia red-brown, covering entire membrane, basal angle of r_4 17°. Halter brown with pale yellow knob. Legs: *cx* brown with yellow patches, silver pruinose except for some shiny bare areas, white setose (few black on anterior of *cx*1); trochanters brown and orange; *fem* brown-orange (*fem* 1) brown-orange dorsally dark red-brown ventrally (*fem* 2) dark red-brown with orange-brown ends and dorsal strip (*fem* 3), white setose; *tib* orange-brown (*tib* 1–2) red-brown with orange-brown dorsally, macrosetae mostly black (a few white), setae white (a few dark red-brown); *tar* orange-brown, black setose.

Abdomen: Terga dark red-brown (T1–6) distal segments orange-brown, shiny apruinose except for silver distolateral parts, small black setae (white laterally). Sterna orange-brown, silver pruinose except for tiny shiny apruinose spots, fine white setose. Genitalia: ♂ holotype not dissected and macerated, topotypic paratype ♂ illustrated (Figs 54–57):

Hypopygium unrotated; *epand* (in dorsal view) deeply incised forming two distally pointed lobes; *goncx* externally distally unilobed and projecting (in lateral view) beyond levels attained by *epand* and *hypd*; *hypd* (in lateral view), short, rapidly tapering (in ventral view) in two stages to elongate medial process.

Variation: Individual variation minimal, although the paratype lacking an abdomen is somewhat smaller and lacks the extensive orange pleural areas seen in other specimens.

Type specimens (seen): ZIMBABWE: ♂ **holotype**, 3♂ 1♀ 1? **paratypes**, '6,000 ft / N. Vumba, [1953S 3122E] / S. Rhodesia / 8.4.1965 / D. Cookson.', '*Holopogon* / *vumba* sp.n. / det. H. Oldroyd 1973 / Holotype' [paratypes have appropriate labels].

Distribution (Table 1), phenology (Table 2) and biology: Known only from the type locality in the eastern highlands of Zimbabwe (Fig. 77), and only collected during April.

Similar species: *A. meilloni* (see discussion).

Afroholopogon xeros sp. n.

Figs 58–60, 78

Etymology: Gr. *xeros* (dry). Refers to the generally dry environments in which the species lives.

Description: Based on holotype.

Head: Antenna: Dark red-brown to black, fine silver pruinose, white setose; segmental formula 1.0:0.9:2.2:0.3:2.3. Face black, entirely silver pruinose, mystax white, strong, extending almost to antennal sockets. Face width:head width ratio 1.0:4.5. Frons and vertex black, shiny apruinose (a tiny patch of silver pruinescence lies in front of ocellar tubercle), long wavy white setose. Occiput black, silver pruinose except for bare area behind ocellar tubercle, white setose. Proboscis and palpi dark red-brown, white setose.

Thorax: Mesonotum black, apruinose except for narrow silver lateral and posterior margins, covered with long white setae. Setation: *ac* – long fine white (longer postsuture); *dc* – long fine white (longer postsuture); *npl* – 2 moderately long white; *sa* – 1 long slender white macroseta amongst many fine white setae; *pa* – approx. 2 fine white difficult to count amongst many fine long white setae. Scutellum black, shiny apruinose with narrow anterior silver pruinose margin, disc asetose, margin with approx. 26 thin white setae arranged in 2 rows. Pleura brown, fine silver pruinose except for bare areas on anepisternum, katepisternum and meron, white setose. Wing 4.8 x 1.9 mm, membrane transparent, veins yellow basally brown distally, microtrichia absent, basal angle of r_4 25°. Halter brown with yellow knob. Legs: *cx* black, silver pruinose, white setose; trochanters black; *fem* black, distal tips slightly paler dark red-brown, white setose; *tib* orange, distal tips dark red-brown, mainly white setose (some dark red-brown distally); *tar* dark red-brown, white and black setose.

Abdomen: Terga black, shiny apruinose except for small silver areas margins, long pale yellow setose. Sterna dark red-brown, pruinescence masked by many long pale yellow setae. Genitalia: ♂ holotype not dissected and macerated, topotypic paratype ♂ illustrated (Figs 58–60): Hypopygium rotated through about 180°; *epand* (in dorsal view) deeply incised forming two basally connected distally projecting apically down-curved lobes that project beyond levels attained by *goncx* and *hypd*; *goncx* externally distally bilobed and not projecting (in lateral view) beyond levels attained by *epand* and *hypd*; *hypd* (in lateral view), robust, curved and of complex shape in ventral view (Fig. 60).

Variation: Although some size variation is evident (wing-lengths from 3.7–6.5 mm) individual variation is minimal.

Type specimens: NAMIBIA: 1♂ **paratype**, Warmbad [1910S 1349E] / S.W.A. / Koakoveld' ~ 'Mus. Exped. / Feb. 1925' (SAMC); 5♂ 7♀ **paratypes**, 'Kamanyab [1938S 1450E] / S.W.A' ~ 'Mus. Exped. / Mar. 1925' (SAMC); ♂ **holotype**, 2♂ 8♀ **paratypes**, 'Namibia 24.iii.1984 / 52 km W Outjo. Road 65 / 20 14'S:15 40'E / Stuckenberg & Londt / Mopane woodland on a / rocky hillside.'; 4♀ **paratype**, 'Namibia 20.iii.1984 / 60 km E Otjiwarongo. / Rd 101 20 39'S:17 05'E / Londt & Stuckenberg / Acacia thornveld and / dry river course.'; 1♂ **paratype**, 'SW Africa: / Tsisab Cyn. [2101S 1441E] / Brandberg Mts / v-11-58, 550 m', 'E.S. Ross & / R.E. Leech / collectors' (CASC); 1♂ **paratype**, 'Namibia 27.iii.1984 / Omaruru commonage / 21 26'S:15 57'E / Londt & Stuckenberg / Acacia savanna with / large boulders.'; 1♂ 4♀ **paratypes**, 'Namibia 27.iii.1984 / 30 km S Omaruru. Road / 2/3 21 41'S:15 57'E / Stuckenberg & Londt / Sparse Acacia scrub / in cattle pasture.'; 2♂ 3♀ **paratypes**, 'Namibia 27.iii.1984 / Kahn River 24 km N of / Karibib. Road 2/3 / 21 47'S:15 55'E / Londt & Stuckenberg / Acacias/Dry river bed.'; 2♂ 3♀ **paratypes**, 'Namibia 27.iii.1984 / 10 km W Karibib. Road / 2/3 21 56'S:15 45'E / Londt & Stuckenberg / Roadside shrubs with / open sandy patches.'; 1♂ **paratype**, 'Namibia 28.iii.1984 / 15 km W Usakos. Road 2/2 / 21 58'S:15 30'E / Londt & Stuckenberg / Roadside vegetation – / flowers.'; 3♀ **paratypes**, 'Namibia 28.iii.1984 / 43 km NW Usakos. Road / 1930 Spitzkop area. / 21 59'S:15 21'E / Stuckenberg & Londt / Acacias, rocky area.'; 4♂ 2♀ **paratypes**, 'Namibia 24.iv.1983 / 20 km W Usakos 2115CD / Londt & Stuckenberg / Sparse Savannah.'; 3♂ 5♀ **paratypes**, 'Namibia 24.iv.1983 / 10 km E Usakos 2115DC / Londt & Stuckenberg / Roadside vegetation.' (1♂ 1♀ BMNH); 1♂ **paratype**, 'Omaruru [2115S 1600E] / J.S. Brown / 1921' (SAMC); 1♀ **paratype**, 'Namibia 28.iii.1984 / 20 km W Okahandja Road / 7/1. 21 56'S:16 42'E / Stuckenberg & Londt / Mixed woodland with / bare ground.'; 1♂ **paratype**, 'Namibia 19.iii.1984 / 87 km SE Otjiworongo. / Rd. 57 21 03'S:17 10'E / Stuckenberg & Londt / Acacia woodland with / long grass in seed.'; 1♂ **paratype**, 'Namibia 19.iii.1984 / Omuramba Omatako Riv. / Near Osire. Road 57 / 21 05'S:17 15'E / Londt & Stuckenberg / Grassy road verges.'; 1♂ 1♀ **paratypes**, 'Namibia 19.iii.1984 / 35 km W Otjosondu. Road / 57. 21 12'S:17 31'E / Londt & Stuckenberg / Mixed Acacia woodland / with grassy patches.'; 1♂ **paratype**, 'Namibia 27.iii.1984 / Usakos. Town dump. / 22 00'S:15 34'E / Stuckenberg & Londt / Poor Acacia woodland / stony ground.'; 1♂ **paratype**, 'Namibia 17.iii.1984 / 47 km W Witvlei. Road / 6/1. 22 22'S:18 03'E / Stuckenberg & Londt / Acacia savanna with / shrubs and grass.'; 2♀ **paratypes**, 'Namibia 17.iii.1984 / Witvlei, hill SW of / town. 22 26'S:18 31'E / Stuckenberg & Londt / Acacias & low shrubs.'; 1♀ **paratype**, 'Kalkfontein [2801S 1845E] / S.W.A.' ~ 'J.S. Brown / Oct. 1923' (SAMC). SOUTH AFRICA: 1♂ **paratype**, 'Vioolsdrift [2846S 1739E] / Namaqualand' ~ 'Museum Staff / March 1935' (SAMC).

Distribution (Table 1), phenology (Table 2) and biology: Found over a fairly large area centred on Namibia (Fig. 78). Much of the material was collected by me on two trips to the northern parts of the country. The species was commonly encountered at almost every locality visited and is almost certain to be encountered in the southern parts of the country which I have not visited at a suitable time. The species flies from February to May although a single record exists for October. Most of the material was swept from grass.

Similar species: Difficult to confuse with any other species, but considered most similar to *chirundu* and *fugax* and *tanystylos* (see discussion).

Rhabdogaster gracilis (Engel & Cuthbertson, 1937), **comb. n.**

Heteropogon gracilis Engel & Cuthbertson, 1937: 13, 14, fig. 9a antenna; Oldroyd 1974: 47, fig. 37 entire female; 1980: 362 (catalogue). Type locality: Zimbabwe.
Afroholopogon gracilis: Londt 1994: 64.

Type specimens: ZIMBABWE: ♂ **holotype**, 'Trefonen Farm / Trelawney / S. Rhodesia. / Dept. Agric. / 22/11/1935', 'W.L. Williams / collector', 'Type von / *Heteropogon* / *gracilis* Engel' [orange], '973' (NMBZ).

Note: In their paper, Engel & Cuthbertson (1937) record the type locality as 'Trefonen farm near Trelawney, Lomagundi' and the date of collection as 'December 1935'. Lomagundi [1710S 3005E] is not recorded on the specimen labels while the month of collection (written by hand in black ink) may either be interpreted as November or February.

Other material recorded: Oldroyd (1974) gives '? S.W. AFRICA: 25 km E. of Gababis (B.M. A. Afr. Exped., 1972)'.

Comment: The holotype, in excellent condition, leaves no doubt that the species must be transferred to *Rhabdogaster*, and so the new combination *Rhabdogaster gracilis* (Engel & Cuthbertson, 1937) is here established. I have also examined a female in the BMNH which appears to be the specimen Oldroyd (1974) illustrated (his fig. 37). The label reads 'S.W. Africa (W56) / 16 mls. E Gobabis / 11.iv.1972', 'Southern / African Exp. / BM. 1972-1' and is therefore not exactly as cited by Oldroyd (see above). I assume a mistake was made when providing the information for the 1974 publication. This specimen was also incorrectly identified as it too definitely represents a species of *Rhabdogaster*. Further comment on this material is intended in a planned revision of *Rhabdogaster*.

Afroholopogon species for future description

I am aware of four additional species that will require description when more material becomes available. Details of the material are as follows.

Afroholopogon sp. A.
KENYA: 1♀, 'Kenya 100 / Km W. Mombassa [0403S 3940E] / 5.xii.1989 / A. Freidberg / & F. Kaplan'.
This represents the only known record of the genus from Kenya (Table 1).

Afroholopogon sp. B.
SOUTH AFRICA: 1♀, 'S. Africa: Northern Cape / Richtersveld, Numees / Mine. 28°18'S,16°58'E / 16–20.II.1979. Mal. trap / Lamoral, Bampton, Barnley'.
The only known record of the genus from the Richtersveld, an interesting arid region well known for both plant and animal endemism.

Afroholopogon sp. C.
SOUTH AFRICA: 1♂, 'Sth Africa: Cape Prov / Wallekraal 3017BC / Date: 25.x.1986 / Coll. L. E. Schoeman'.
This male is in poor condition. The genitalia have been macerated and found not to conform with any other species.

Afroholopogon sp. D.
SOUTH AFRICA: 1♀, 'Mkuzi 22 18/3/2005 / °S-27.67026 °E32.25109 / *Terminalia sericea* / Woodland / Transect 1 / Earthwatch Team 11 / e408'; 1♀, 'Mkuzi 51 18/3/2005 / °S-27.66356 °E-32.26732 / *Acacia nilotica* and *Acac* / *tortilis* Woodland / Transect 2 / Earthwatch Team 11 / e1183'.
This is material collected during a survey conducted at the Mkuzi Game Reserve in northern KwaZulu-Natal.

Key to afrotropical *Afroholopogon* species

1 Mystax entirely white or pale yellow 8
– Mystax entirely or extensively black (white, yellow or orange setae may occur above epistomal margin) 2

2 Mystax entirely black 3
– Mystax with white, yellow or orange setae above epistomal margin 6

3 Head, thorax and abdomen entirely black, legs black except for orange tibiae; all setae black .... **melas** sp. n.
– Head, thorax and abdomen not entirely black, leg parts other than tibiae not entirely black; at least some major setae white or yellow 4

4 Vertex, except for ocellar tubercle, entirely red-gold pruinose; mesonotum anteriorly with red-gold pruinose stripe corresponding with acrostichal setae ....
.... *meilloni* (Oldroyd, 1974)

– Vertex, including ocellar tubercle, extensively apruinose; mesonotum anteriorly shiny apruinose in region of acrostichal setae 5

5 Postpronotal and postalar lobes orange and contrasting with rest of mesonotum which is black .... *vumba* (Oldroyd, 1974)
– Postpronotal and postalar lobes black and not contrasting with rest of mesonotum .... **anassa** sp. n.

6 Pale mystacal setae pale yellow or white; femora black at least dorsally if not more extensively; facial area covered by mystax entirely silver pruinose, sometimes only weakly; lower occipital setae white 7
– Pale mystacal setae bright yellow or orange; femora entirely orange; facial area covered by mystax entirely shiny apruinose and contrasting with facial area adjacent to eye margins; lower occipital setae yellow or orange .... *africanus* (Ricardo, 1925)

7 Pale mystacal setae pale yellow; femora black dorsally and orange ventrally; mesonotum anterior of transverse suture lacking silver pruinose stripes corresponding with dorsocentral setae .... *peregrinus* (Engel, 1929)
– Pale mystacal setae white; femora entirely black; mesonotum anterior of transverse suture with clearly defined silver pruinose stripes corresponding with dorsocentral setae .... *capensis* (Lindner, 1961)

8 Hind femur extensively dark red-brown to black (distal tip usually at least slightly orange) 9
– Hind femur entirely orange .... **chirundu** sp. n.

9 Tibiae mainly, or at least partly, light brown or orange 10
– Tibiae entirely dark red-brown to black .... **mauros** sp. n.

10 Antennal style, excluding basal element, at least twice as long as scape; male hypopygium rotated through 90–180° 11
– Antennal style, excluding basal element, less than twice as long as scape; male hypopygium unrotated 13

11 Pleura with shiny apruinose areas 12
– Pleura entirely pruinose and without shiny apruinose areas .... **tanystylos** sp. n.

12 Abdominal terga with poorly developed medial setae (< half length of lateral ones) .... *fugax* (Loew, 1858)
– Abdominal terga with well developed medial setae (> half length of lateral ones) .... **xeros** sp. n.

13 Abdominal terga shiny apruinose except for a narrow strip of silver pruinescence confined to lateral margins; male with proctiger not extending much beyond deeply incised epandrial lobes, and hypandrium with a distomedial lobe 14
– Abdominal terga more extensively pruinose, if not covering most of tergal surface, there are medially directed extensions of the lateral strip; male with proctiger extending far beyond shallowly incised and usually much reduced epandrium, and hypandrium distally truncate and without a distomedial lobe 15

14 Male genitalia as in Figs 13–15; distomedial hypandrial lobe lacking lateral wing-like extensions .... **argos** sp. n.

– Male genitalia as in Figs 16–19; distomedial hypandrial lobe with lateral wing-like extensions .... **aspros** sp. n.

15 Mesonotal pruinescence entirely gold; marginal scutellar setal number > 40 .... **dasys** sp. n.

– Mesonotal pruinescence silver (*uranopia* female has silver laterally and gold medially); marginal scutellar setal number < 30 16

16 Eye anterodorsally flattened, especially in male (Fig. 3); male with facial area occupied by mystax shiny apruinose; abdominal tergal pruinescence restricted to lateral strips with narrow medially directed extensions adjacent to posterior tergal margins .... **uranopia** sp. n.

– Eye not anterodorsally flattened and not of unusual appearance; male with facial area occupied by mystax entirely silver pruinose; abdominal tergal pruinescence fairly extensive leaving only relatively small areas of terga apruinose .... **pardosoros** sp. n.

Ischiolobos gen. n.

Etymology: Gr. *ischion* (hip) and *lobos* (elongated projection). Refers to the elongate process on the anterior face of the metathoracic coxae.

Type species: *Heteropogon holcocephaloides* Lindner, 1955 by present designation.

Description: Members of this genus are generally similar to species of *Afroholopogon* and will key to that genus in the most recent generic key (Londt 1999). That key requires updating to include *Ontomyia* Dikow & Londt, 2000, and *Oligopogon* Loew, 1847 after its transfer to the Stenopogoninae by Geller-Grimm & Hradský (2003). The genus therefore combines the following features: (1) The mesonotum is not greatly elevated and humplike (as in *Oxynoton* Janssens, 1951); (2) The postmetacoxal area is membranous (although this feature is shared with most other genera of the subfamily, it is of special importance because the species of *Rhabdogaster*, characterised by the possession of a sclerotized postmetacoxal bridge, are very similar and frequently confused with species of *Afroholopogon* and *Ischiolobos*); (3) The pulvilli are well developed (thus differentiating these taxa from superficially similar taxa such as *Acnephalum* Macquart, 1838, *Ammodaimon* Londt, 1985 and *Sisyrnodytes* Loew, 1856); (4) The anal lobe of the wing lacks a bordering vein, i.e. the costa terminates at or before the point where the anal vein joins the wing margin; this character is particularly important as it separates these taxa from palaearctic species of *Cyrtopogon* Loew, 1847, *Heteropogon* Loew, 1847 and *Holopogon* Loew, 1847 as discussed by Londt (1994).

In combination the following features are diagnostic for *Ischiolobos*: (1) The metacoxae have, on the anterior surface, an elongate, distally rounded peg-like process (Fig. 5). Care needs to be taken when viewing these structures. While they can usually be seen when viewing specimens laterally, these processes may be at least partly hidden by the mesocoxae as they tend to project into the space between the meso- and metacoxae (this is best seen ventrally). Although this character is found in a wide range of other asilids, it appears to be restricted to only a few afrotropical stenopogonine genera. A survey demonstrated their existence in species of only two other genera, *Hypenetes* Loew, 1858 and *Trichoura* Londt, 1994; (2) Female hypopygium with poorly-developed distal valves (Figs 63–64). In comparison with species of *Afroholopogon*, the hypopygial valves are small and not markedly distolaterally compressed to form a V-shaped structure (e.g. as seen in *A. capensis* – Figs 61–62); (3) Male genitalia have a suite of characteristics that when found together are diagnostic: (a) The hypopygium is rotated through about 180°. While a number of *Afroholopogon* species also share this character, many do not; (b) The epandrium projects beyond the levels attained by either the gonocoxites (including gonostyli) or hypandrium and is usually weakly lobed and shaped like an inverted bowl (*niveoscutum*, and to a much lesser extent *notios*, do however have more obviously defined epandrial lobes); (c) The gonocoxite when viewed laterally has a simple appearance in that it is unilobed distally. Again some *Afroholopogon* species share this character, but many do not; (d) The hypandrium is relatively poorly developed, being wider than long in ventral view and not projecting distally to the level attained by the gonocoxites. The mediodistal tip is pointed in ventral view and, when viewed laterally, it is upturned and lies between the gonocoxites (often hidden from view); (4) Mystax poorly developed below antennal sockets. The mystacal macrosetae are arranged ventrally above the epistomal margin. Much smaller setae are found halfway up the face and those in the upper region of the face, below antennal sockets, are tiny and somewhat adpressed to the facial surface. While some species of *Afroholopogon* have mystacal setae that are either widely separated in the middle and upper parts of the face or small and weakly developed, most have a relatively well-developed mystax; (5) Mesonotal pruinescence is extensive. Both *holcocephaloides* and *mesotopos* possess a completely pruinose mesonotum. While *notios* has extensive mesonotal pruinescence there are well-defined apruinose spots, *niveoscutum* is exceptional in having a far more extensively apruinose mesonotum and is therefore comparable to the vast majority of *Afroholopogon* species (*A. mauros* being exceptional in having an almost entirely pruinose mesonotum).

Ischiolobos may be keyed by adapting Londt's (1999) key as shown below.

13 Mesonotum greatly elevated anterodorsally and hump-like (2 species – Londt 1996) .... *Oxynoton* Janssens, 1951
– Mesonotum not hump-like, but of more usual form 13a

13a Metacoxae with elongate, distally rounded, peg-like process on anterior surface (4 species – Londt this paper) .... **Ischiolobos** gen. n.
– Metacoxae lacking peg-like process on anterior surface (18 species – Londt this paper) .... *Afroholopogon* Londt, 1994

Ischiolobos holcocephaloides (Lindner, 1955), **comb. n.**

Figs 65–67, 80

Heteropogon holcocephaloides Lindner, 1955: 30, 31; Oldroyd 1980: 362 (catalogue). Type locality: Tanzania.
Afroholopogon holocephaloides [sic]: Londt 1994: 64.

Redescription: Based on holotype.

Head: Antenna: Dark red-brown, fine gold pruinose, yellow setose; segmental formula 1.0:1.4:4.0:0.1:1.4. Face dark red-brown, entirely gold-silver pruinose, mystax yellow, strong ventrally, centrally weak, dorsal region asetose. Face width:head width ratio 1.0:4.5. Frons and vertex dark red-brown, entirely gold-silver pruinose, tiny fine yellow setose. Occiput dark red-brown (colour masked by gold-silver pruinescence covering entire area), fine pale yellow setose. Proboscis red-brown, yellow-white setose. Palpi red-brown yellow setose.

Thorax: Mesonotum dark red-brown, entirely gold-silver pruinose with brown-red patches. Setation: *ac* – tiny pale yellow (a little longer postsuture); *dc* – fine yellow, longer postsuture; *npl* – 3 short yellow accompanied by a few smaller setae; *sa* – 1 fine yellow accompanied by some tiny yellow setae; *pa* – 1 fine yellow and a few tiny setae. Scutellum red-brown, entirely gold-silver pruinose, disc with a few tiny yellow setae, margin with approx. 4 thin yellow setae. Pleura red-brown, entirely gold-silver pruinose, sparsely yellow setose. Wing 4.9 x 2.1 mm,light brown, microtrichia red-brown, covering entire membrane, basal angle of r_4 20°. Halter yellow with brown-pink knob. Legs: *cx* red-brown, gold-silver pruinose, yellow setose, anterior surface of *cx* 3 with peg-like projection (Fig. 5, ♂ from Mkuzi); trochanters brown; *fem* yellow with brown dorsodistal parts, fine yellow setose (brown on brown parts); *tib* yellow with brown distal half, yellow setose; *tar* yellow-brown, distal segments darker than proximal ones, setae yellow and brown.

Abdomen: Terga mostly yellow, T7–9 orange-brown, fine gold pruinose, especially laterally, fine yellow setose. Sterna mostly yellow, S7–9 orange-brown, entirely fine gold-silver pruinose, fine yellow setose. Genitalia: Holotype not dissected, but agrees well with Mulanje ♂ illustrated (Figs 65–67): Hypopygium rotated through between about 180°; *epand* (in dorsal view) shallowly incised distomedially to form slightly bilobed cupped structure; *goncx* externally distally unilobed; *hypd* (in lateral view) short and not projecting distally beyond level attained by *goncx*, tapering rapidly (in ventral view) to somewhat pointed medial process.

Variation: Individual variation minimal, but some geographical variation evident. The holotype appears slightly teneral in that its colours are somewhat paler when compared with other specimens. The Kenyan female has slightly more extensively darkened hind femora, while specimens from the southern parts of the range have black ventral femoral setae rather than yellow ones. The Marieps female is somewhat unusual in having orange postpronotal lobes and parts of the thoracic pleura.

Type specimens (seen): TANZANIA: ♂ **holotype**, 1♂ **paratype**, 'Kware b. Moshi [0321S 3720E] / 27.xii.–13.i.1952 / D. O. Africa Exp.', '4.i.52', '*Holcocephala* / sp. inder. / det. H. Oldroyd. 1953 / NOT *caligata* Speiser', '*Heteropogon* / *holcocephaloides* / Lindner det Lind.'. The ♂ is labelled 'Typus / Lindner / 1954 [sideways] [red ink]' while the ♀ is labelled 'Paratypoid / Lindner / 1954' (SMNS).

Other material studied: KENYA: 1♀, 'Kenya, Rt. A109 / Kibwezi [0225S 3758E] 200 Km / S.E. Nairobi / 2,7.xii.1989 / A. Freidberg / & Fini Kaplan'. MALAWI: 1♂, 'Malawi Zomba Plateau / 13–14.xii.1980 1500 m / Londt & Stuckenberg / 1535Ad Montane forest'; 2♂ 3♀, 'Malawi Mulanje Mnt. / Likabula river valley / 28–30.xi.1980 1535Dc / 1000 m Stuckenberg & / Londt Riverine / *Brachystegia* woodland'. SOUTH AFRICA: 1♀, 'Marieps Mnt.[2432S 3052E] / Jan. 1926 / G. van Son.'; 1♂ 1♀, 'Mt Emlembe near Havelock / Mine on Barberton Road / 25°55'S, 31°07'E. 2531CC / 7 Nov. 70 Stuckenberg 1425 m / Montane forest & streams'; 1♂, 'South Africa, Natal Prov. / 20 mi. N. Jozini (2732Ac) / Nov. 28, 1971 ME & BJ Irwin / dry hillside; 750 ft. el.'; 1♀, 'South Africa, Natal Prov. / 10 mi. N. Jozini (2732Ac) / Nov. 28, 1971; ME & BJ Irwin / dry forest; 800 ft. el.'; 1♀, 'South Africa: Natal / Mkuze Reserve / 3215E 2740S [order reversed] 21.xii.92 / P E Reavell 120 m / Light in Acacia / veld'; 1♂, 'Mkuzi 50 1/26/2005 / °S-27.62638 °E32.25995 / *Acacia grandicornuta* / Short Open Woodland / Transect 1 / Earthwatch Team 11 / d1125'; 1♂, 'Mkuzi 51 20/1/2005 / °S-27.66356 °E32.26732 / *Acacia nilotica* and *Acac* / *tortilis* Woodland / Pan_trap 8 Yellow / Earthwatch Team 10 / d513'; 1♂ 3♀, 'South Africa, Natal Prov. / Zululand, Dukuduku Forest / 4 mi. W. of St. Lucia; 3 m. / Nov. 26, 1971; (2832Ad) / ME & BJ Irwin'; 2♂ 4♀, 'South Africa: Natal / Krantzkloof Nat. Res. / 2930DD / Date: 8.xi.1984 / Coll: J.G.H. Londt'.

Distribution (Table 1), phenology (Table 2) and biology: The southern African distribution is shown in Fig. 80. Localities in East Africa are too few to warrant illustration. The species flies from November to January. Although labels suggest an association with forests, the species probably lives in grassy ecotonal situations.

Similar species: *A. mesotopos* (see discussion).

Ischiolobos mesotopos sp. n.

Figs 6, 63, 64, 68–70, 80

Etymology: Gr. *mesos* (middle) and *topos* (place, position). Refers to the species inhabiting the midlands of KwaZulu-Natal.

Description: Based on holotype (Fig. 6).

Head: Antenna: Black, fine red-gold pruinose, dark red-brown setose; segmental formula 1.0:1.3:3.9:0.1:1.1. Face black, entirely fine red-gold pruinose, mystax with long strong black setae along epistomal margin and tiny pale yellow setae centrally that extend weakly to below antennal sockets. Face width:head width ratio 1.0:4.6. Frons and vertex black, entirely red-gold pruinose, fine dark red-brown setose. Occiput black, silver pruinose, white setose (dorsal setae pale yellow). Proboscis dark red-brown, white setose. Palpi dark red-brown, *plp* 1 white setose, *plp* 2 brown setose.

Thorax: Mesonotum black, entirely pruinose except for postpronotal lobes, gold-red anteriorly and centrally, silver laterally and posteriorly. Setation: *ac* – tiny black setae; *dc* – tiny black setae anteriorly, longer posteriorly; *npl* – 2 black; *sa* – 1 black; *pa* – 1 black. Scutellum black, entirely silver pruinose, disc asetose, margin with 2 black macrosetae and tiny black setae. Pleura black, entirely silver pruinose, sparsely pale yellow setose. Wing 4.4 x 2.1 mm, dark brown, microtrichia black, covering entire membrane, basal angle of r_4 20°. Halter pale brown with pale orange-yellow knob. Legs: *cx* black, silver pruinose, white setose; trochanters black; *fem* black, macrosetae black setae black and yellow; *tib* orange with dark red-brown distal end (more extensive on *fem* 3), macrosetae black, setae black and yellow; *tar* dark red-brown, *tar* 1–2 extensively orange, most setae black bur some yellow.

Abdomen: Terga black, largely apruinose except for weak silver lateral margins, yellow setose (T1 has 3–4 black setae). Sterna black, entirely weak silver pruinose, fine yellow setose. Genitalia: Holotype not dissected, topotypic paratype ♂ illustrated (Figs 68–70): Hypopygium rotated through about 180°; *epand* (in dorsal view) incised to approximately half length to form broadly basally-fused distally-rounded cupped structure projecting well beyond levels attained by either *goncx* or *hypd*; *goncx* externally distally unilobed and projecting (in lateral view) beyond level attained by *hypd*; *hypd* (in lateral view) short, rapidly tapering to pointed medial process.

Variation: The Cumberland females have less extensively black femora (i.e. femora are orange proximally) and have yellow mystacal macrosetae. These specimens may represent a closely related and undescribed species, but in the absence of males they are here regarded as variants of those found at the type locality.

Type specimens: SOUTH AFRICA: 1♂ 2♀ **paratypes**, 'Hilton [2930CB] / Natal / 29.11.1965 / J.S. Taylor'; 1♀ **paratype**, 'South Africa: KZ-Natal / Cumberland Nature Res. / 29°30.199'S:30°30.207'E / 13.i.2004 J Londt T Dikow / 560 m Open rocky area & / *Acacia* woodland near river'; 2♀ **paratypes**, 'South Africa KZN / Cumberland Nat. Res. / 29°30.832'S 30°30.306'E / Light trap 654 m / Date: 2-3.xii.2004 / Coll: M. Mostovski' (1♀ BMNH); 1♀ **paratype**, 'S Africa: KwaZulu-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / 900 m 8.i.2000 / J.G.H. Londt Grassland'; 1♀ **paratype**, 'S Africa: KwaZulu-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / 900 m 11.i.2000 / J.G.H. Londt Grassland'; ♂ **holotype**, 1♀

paratype, ‘S Africa: KwaZulu-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / J.G.H. Londt Grassland / 900 m 19.i.2000 p.m.’; 1♀ **paratype**, ‘Sth Africa: KZ-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / JGH. Londt Grassland / Date: 22.i.2000 a.m.’; 1♂ **paratype**, ‘Sth Africa: KZ-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / JGH. Londt Grassland / Date: 30.i.2000 p.m.’; 1♂ 1♀ **paratype**, ‘Sth Africa: KZ-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / JGH. Londt Grassland / Date: 5.ii.2000 a.m.’; 1♀ **paratype**, ‘Sth Africa: KZ-Natal / Queen Elizabeth Park / 29°34'00"S 30°19'14"E / JGH. Londt Grassland / 900 m 7.i.2001 p.m.’; 1♀ **paratype**, ‘South Africa: KZ-Natal / Queen Elizabeth Park Res / 29°33.994'S:030°19.287'E / 829 m 30.xii.2003 / JGH Londt & M Mostovski / Mistbelt Grassland area’.

Distribution (Table 1), phenology (Table 2) and biology: Known from three fairly closely situated localities in the KwaZulu-Natal midlands (Fig. 80). The species flies from November to February. This species was included in Londt’s (2002) study of grassland asilids at Queen Elizabeth Park, Pietermaritzburg. Pending this revision it was called *Afroholopogon* sp. 1 and some nine specimens were encountered during that study. The species was encountered on weeks 1–5 of the study (i.e. in January and early February) and considered a summer-active species. Little is known of its biology except that it lives in tall grass.

Similar species: *I. holcocephaloides* and *notios* (see discussion).

Ischiolobos niveoscutum (Hull, 1967), **comb. n.**

Figs 71–73, 80

Holopogon niveoscutum Hull, 1967: 239; Oldroyd 1980: 362 (catalogue). Type locality: Lesotho.
Afroholopogon niveoscutum: Londt 1994: 64.

Redescription: Based on holotype.

Head: Antenna: Dark red-brown, fine red-gold pruinose, mainly black setose (some pale setae on scape); segmental formula 1.0:1.1:4.3:0.1:1.3 (basal segment of style difficult to discern). Face dark red-brown, entirely silver pruinose, mystax black, limited to lower third of face. Face width:head width ratio 1.0:4.0. Frons and vertex dark red-brown, laterally silver pruinose (ocellar tubercle apruinose), long dark red-brown setose (a few pale yellow setae laterally). Occiput dark red-brown, silver pruinose, white setose (few dark red-brown dorsally). Proboscis red-brown, white setose. Palpi brown, pale yellow-brown setose.

Thorax: Mesonotum dark red-brown, silver pruinose except for large apruinose areas. Setation: *ac* – fine long dark red-brown; *dc* – fine long dark red-brown; *npl* – 2 moderate black; *sa* – 1 long thin black and smaller setae; *pa* – fine long dark red-brown. Scutellum dark red-brown, entirely silver gold pruinose, disc asetose, margin with 4 long thin black macrosetae and a few tiny setae. Pleura brown, entirely silver pruinose, major setae black. Wing 3.7 x 1.7 mm, membrane brown, microtrichia brown, covering entire membrane, basal angle of r_4 21°. Halter pale brown with white knob. Legs: *cx* dark brown, silver pruinose, white setose; trochanters dark brown; *fem* dark brown fine long dark red-brown and yellow setose; *tib* and *tar* similar to *fem*.

Abdomen: Terga orange-brown, shiny apruinose except for silver pruinose anterior parts of T1–4, dark red-brown setose. Sternal colour as tergal but slightly paler, apruinose except for small anteromedial silver pruinose spots, setae long fine yellow-brown. Genitalia of holotype not macerated but appearing to conform closely with the illustrated Rhodes ♂ (Figs 71–73): Hypopygium rotated through about 180°; *epand* (in dorsal view) deeply incised to form broadly-rounded lobes that project well beyond level attained by *hypd*; *goncx* externally distally unilobed and projecting (in lateral view) slightly beyond level attained by *epand*; *hypd* (in lateral view) short, rapidly tapering to slightly distally bilobed medial process.

Variation: Sexes similar. Specimens from 10 km E Rhodes agree well with the holotype except that they are slightly larger (female wing-length 5.2 mm, male wings tattered and not measured), black (note that the holotype may be somewhat teneral), and with less extensive mesonotal pruinescence.

Type specimen (seen): LESOTHO: ♂ **holotype** (seen) 'Mamalapi Mtn [2916S 2803E] / Basutoland / 27-xii-1948 / C. Jacot-/ Guillarmod' (MZLU).

Other material studied: SOUTH AFRICA: 1♂ 1♀, 'South Africa : Cape. / 10 km E Rhodes 3028CC / Bottom Naudésnek Pass / J. Londt + B. Stuckenberg / 9.i.1979 River banks'.

Distribution (Table 1), phenology (Table 2) and biology: Known from two localities at high altitudes in and near Lesotho (Fig. 80). The species flies from December to January. The Rhodes material was swept from tall grass along the banks of a stream.

Similar species: *I. notios* (see discussion).

Ischiolobos notios sp. n.

Figs 74–76, 80

Etymology: Gr. *notios* (southern). Refers to the southern African distribution of this species.

Description: Based on holotype.

Head: Antenna: Dark red-brown, fine gold-silver pruinose, pale yellow-white setose; segmental formula 1.0:1.3:4.4:0.3:1.3. Face dark red-brown, entirely silver pruinose, mystax yellow-white, strong long setae along epistomal margin, small in upper region. Face width:head width ratio 1.0:4.8. Frons and vertex dark red-brown, entirely red-gold pruinose, fine pale yellow-white setose. Occiput dark red-brown, silver-gold pruinose, pale yellow-white setose. Proboscis and palpi dark red-brown, white setose.

Thorax: Mesonotum dark red-brown, postpronotal lobes orange-brown, silver-gold and red-gold pruinose except for apruinose postpronotal lobes and three spots on each side of mesonotum (one anterior of transverse suture, two postsuture). Setation: *ac* – tiny pale yellow-white; *dc* – tiny yellow-white; *npl* – 3 short pale yellow-white; *sa* – 1 long pale yellow-white; *pa* – 1 long pale yellow-white. Scutellum dark red-brown, entirely silver-gold apruinose, disc with few fine small yellow-white setae, margin with 4 thin weak yellow-white setae. Pleura with dark red-brown and red-brown areas, entirely gold-silver pruinose, sparsely pale yellow setose. Wing 4.9 x 2.2 mm, dark brown, microtrichia dark red-brown, covering entire membrane, basal angle of r_4 20°. Halter pale yellow-white. Legs: *cx* dark red-brown, silver pruinose, white setose; trochanters orange-brown; *fem* orange-brown with dark red-brown spot at distal tip, pale yellow-white setose; *tib* orange-brown, red-brown distally, pale yellow-white setose; *tar* orange-brown (slightly darker distally), setae predominantly brown.

Abdomen: Terga orange, T6–9 red-brown, fine silver-gold pruinose, T2–5 very weak to apruinose, yellow setose. Sterna brown-orange, distal segments orange-brown, gold-silver pruinose except for almost entirely apruinose S2–3, yellow setose. Genitalia of holotype not macerated but conform well with the illustrated Addo ♂ paratype (Figs 74–76): Hypopygium weakly sclerotised (stained for illustration) rotated through about 180°; *epand* (in dorsal view) incised to form narrowly-rounded lobes that project well beyond level attained by either *goncx* or *hypd*; *goncx* externally distally unilobed and projecting (in lateral view) beyond level attained by *hypd*; *hypd* (in lateral view) short, rapidly tapering to upwardly directed pointed medial process.

Variation: Sexes similar. Individual variation minimal.

Type specimens: SOUTH AFRICA: 1♀ **paratype**, 'Papendorp [3142S 1813E] / S.A.M. Nov 56' (SAMC); 3♂ 2♀ **paratypes**, 'Merweville [3240S 2131E] / Laingsburg Distr.' ~ 'H. Zinn / 1 : 59' (SAMC); ♂ **holotype**, 'Sth Africa: [Eastern] Cape Prov / Urquhart Park Caravan / Park in Graaff Reinet / 32°14'S:24°32'E 800 m / J&H Londt 7.xii.1989 / Acacia savanna nr dam'; 2♀ **paratypes**, 'Sth Africa: Cape Prov / Graaff-Reinet / Urquhart Park Caravan / Park 4–6.xii.1988 / 32°15'S:24°33'E / JGH Londt Riverine / veget. Sandy ground'; 4♂ 6♀ **paratypes**, 'Papiesfontein [3358S 2459E] / Gamtoos Mth.' ~ 'S.A.M. / 1 : 60' (SAMC); 1♂ **paratype**, 'S. Africa Cape Prov. / Addo district 3325Da / Sundays River Valley / JGH Londt ex Malaise / 1–8.i.1978'; 1♀ **paratype**, 'Resolution [3310S 2637E] / Albany Distr / 30/I 1929 / A. Walton'.

Distribution (Table 1), phenology (Table 2) and biology: Fairly widely distributed in the southern parts of South Africa from the west coast through to the Eastern Cape (Fig. 80), an area largely in the Succulent Karoo and Nama-Karoo biomes. The species flies from November to January.

Similar species: *I. niveoscutum* (see discussion).

Ischiolobos species for future description

One additional species will require description when more material becomes available. As the locality is of interest I give details below.

Ischiolobos sp. A.

SOUTH AFRICA: 2♀, 'Sth Africa: Cape Prov / Meiringspoort 3322BC / 11–12.xii.1979 Londt / & Stuckenberg Rocky / hillside & stream edge'.

These specimens, which possess an entirely pruinose mesonotum, appear to belong to a species closely related to *mesotopos* and *holcocephaloides* (see discussion statement regarding a possible transformation series within the genus).

Key to afrotropical *Ischiolobos* species

1 Mystacal and antennal setae uniformly yellow 2
– Mystacal and antennal setae mainly black (a few yellow setae may be present) 3

2 Mesonotum entirely pruinose; femora clearly bicoloured (dark red-brown proximally, orange distally) .... *holcocephaloides* (Lindner, 1955)
– Mesonotum largely pruinose, but with three large shiny black apruinose spots; femora not clearly bicoloured (fairly uniformly brown) .... **notios** sp. n.

3 Mesonotum entirely dull grey and brown pruinose; tibiae and basitarsi extensively orange .... **mesotopos** sp. n.
– Mesonotum with glistening silver pruinose pattern as well as extensive shiny apruinose parts; legs entirely black .... *niveoscutum* (Hull, 1967)

DISCUSSION

Taxonomy

The validity of *Afroholopogon* has been confirmed, and it has become increasingly evident that afrotropical species are not often appropriately accommodated in palaearctic genera. Although *Afroholopogon*, as originally defined, does have superficial similarity to genera such as *Oxynoton* and *Rhabdogaster*, thorough examination of material normally does not lead to confusion. Unfortunately, some authorities have misidentified specimens and misplaced species in *Rhabdogaster*. Now that a revision of *Afroholopogon* has been completed, many previously incorrectly identified specimens can be properly classified. Careful study has also led to the discovery of a group of species that share a suite of characters sufficiently unique as to warrant the establishment of the new genus, *Ischiolobos*. In gaining familiarity with the species now accommodated in *Afroholopogon* and *Ischiolobos*, it is appropriate to comment on the possible relationships that might exist between them.

In the absence of a detailed phylogenetic analysis, which should be attempted when more is known about this generally poorly sampled group, it is nevertheless appropriate to consider some of the more obvious groupings of species that can be detected, as this may be helpful in both arriving at good identifications, and an understanding of some of the possible relationships between species. Some species may look superficially alike and could be confused without careful study. Species listed under the heading 'Similar species' in the descriptive passages above are however species that are thought to be closely related or at least the result of convergent evolution. The grounds upon which the identity of similar species have been established are briefly as provided below.

Afroholopogon

The genus has groups of species that are obviously linked by common characteristics, and also species that do not appear to have a particularly close similarity to others. Relationships within the genus may therefore be complex. However, as various groups can be identified that highlight similarities, and may possibly throw some light on the possible phylogeny, it is worth drawing attention to these groupings.

Perhaps the most significant groups that can be identified are those based on characteristics of the male postabdomen. The species can be separated into two similarly sized clusters based on the rotation of the male hypopygium. Those with an unrotated hypopygium (probably the plesiomorphic condition) are – *anassa*, *argos*, *aspros*, *dasys*, *mauros*, *pardosoros*, *uranopia* and *vumba*. Three remarkable species, that are otherwise quite different from the other species in the genus (so much so that it could be appropriate to erect yet another genus to accommodate them), can readily be separated out from this group as having similar genitalia – these species are *dasys*, *pardosoros* and *uranopia*. The key, which deliberately does not emphasise genitalia, but rather superficial characters that may be seen using only low magnification, supports their close similarity in that they key out together. While sharing genital features such as reduced S8, reduced epandrium (at least in *dasys* and *pardosoros*), protruding proctiger, elongate gonocoxite and truncate hypandrium, these species are otherwise rather different; and the development of similar characteristics may have arisen independently. For instance, *A. uranopia* is remarkable in the unique development of the eyes, especially in males, and in displaying a degree of sexual dimorphism. *A. dasys* and *pardosoros* appear to have the most comparable genital morphology, but are geographically far removed from one another, leading to suspicion that similarity may be a consequence of convergence.

The species *anassa*, *argos*, *aspros*, *mauros*, *meilloni* and *vumba* also share similarities in male genital form. Epandria are deeply incised and form a pair of sharply pointed lobes, gonocoxites are elongate with one major distal projection externally, and hypandria have a broad basal section carrying an elongate distomedial projection that is neither markedly upturned nor of complex structure distally. Perhaps *mauros* could be considered exceptional within this series in that it is tiny, very darkly pigmented (e.g. legs entirely black) and has an almost entirely pruinose mesonotum. The other species fall into two groups on the basis of hypandrial morphology. *A. anassa*, *argos* and *aspros* are clearly very similar and may be relatively recently derived. As the key demonstrates, *anassa* is perhaps the most distinctive species, while *argos* and *aspros* can only be separated on subtle differences in the shape of the distal process of the hypandrium. While similar to the species just discussed, *meilloni* and *vumba* most resemble one another. Again it is the shape of the distal region of the hypandrium that unites this pair.

Afroholopogon species with a rotated hypopygium are – *africanus*, *capensis*, *chirundu*, *fugax*, *melas*, *peregrinus*, *tanystylos* and *xeros*. The species of this group also share similarities with respect to general male genital morphology. The gonocoxites have a ventrodistal process (in lateral view), and the hypandrium is well-developed and frequently has a dorsally upturned mediodistal process of complex form terminally. The group may be further divided on the basis of epandrial form. For instance, *africanus*, *capensis*, *melas* and *peregrinus* share similarities such as the possession of moderately long and straight (in lateral view) epandrial lobes. It is within this group that some basal fusion of the lobes is also evident and a possible transformation series ranging from the greatest degree of fusion to the least is – *melas* > *capensis* > *africanus* > *peregrinus*. These species are probably closely related, and their distributions tend to support this contention.

Other species within the group that have rotated hypopygia have more or less completely incised epandrial lobes that are both elongate and down-curved distally—these include *chirundu*, *fugax*, *tanystylos* and *xeros*. A transformation series cannot be detected within this group of rather distinctive and allopatric species. For the present they can only be considered as a rather loose cluster.

Ischiolobos

Although this is a small genus of only four described species, a potentially useful transformation series can be detected. Based on the degree of epandrial fusion, which ranges from an almost undivided condition (in *holcocephaloides*) to a condition where lobes are only fused over the basal quarter of their lengths (in *niveoscutum*), the following series can be constructed – *holcocephaloides* > *mesotopos* > *notios* > *niveoscutum*. This transformation series is further supported when considering mesonotal pruinescence; *holcocephaloides* and *mesotopos* have an entirely pruinose mesonotum, *notios* has a largely pruinose mesonotum with a series of apruinose spots, while *niveoscutum* has a largely apruinose mesonotum with smaller areas of pruinescence. If a fused epandrium and a completely pruinose mesonotum represent pleisiomorphic character states, then the series described above takes on added relevance.

TABLE 1

Distribution of *Afroholopogon* Londt and *Ischiolobos* gen. n. species. Abbreviations: B – Botswana, E – Eritrea, K – Kenya, L – Lesotho, M – Malawi, N – Namibia, O – Oman, SA – South Africa, Sw – Swaziland, T – Tanzania, Z – Zimbabwe.

	Southern Africa						**East Africa & Arabia**				
	SA	**L**	**Sw**	**N**	**B**	**Z**	**M**	**T**	**K**	**E**	**O**
Afroholopogon											
A. africanus	•	–	–	–	–	–	–	–	–	–	–
A. anassa	•	–	•	–	–	–	–	–	–	–	–
A. argos	•	–	–	–	–	–	–	–	–	–	–
A. aspros	•	–	–	–	–	–	–	–	–	–	–
A. capensis	•	–	–	–	–	–	–	–	–	–	–
A. chirundu	•	–	–	–	–	•	–	–	–	–	–
A. dasys	–	–	–	–	–	–	–	–	–	•	•
A. fugax	•	–	–	•	–	–	–	–	–	–	–
A. mauros	•	–	–	•	•	–	–	–	–	–	–
A. meilloni	•	–	–	–	–	–	–	–	–	–	–
A. melas	•	–	–	–	–	–	–	–	–	–	–
A. pardosoros	•	–	–	–	–	–	–	–	–	–	–
A. peregrinus	•	–	–	–	–	–	–	–	–	–	–
A. tanystylos	•	–	–	–	–	–	–	–	–	–	–
A. uranopia	•	–	–	–	–	–	–	–	–	–	–
A. vumba	–	–	–	–	–	•	–	–	–	–	–
A. xeros	•	–	–	•	–	–	–	–	–	–	–
A. species	•	–	–	–	–	–	–	–	•	–	–
Ischiolobos											
I. holcocephaloides	•	–	–	–	–	–	•	•	•	–	–
I. mesotopos	•	–	–	–	–	–	–	–	–	–	–
I. niveoscutum	•	•	–	–	–	–	–	–	–	–	–
I. notios	•	–	–	–	–	–	–	–	–	–	–

Distribution

Afroholopogon

Although data are patchy, the genus appears to be distributed over much of southern Africa (Figs 77–79). Gaps can be explained by a general absence of collecting activity in such areas. Single records exists for Kenya and Eritria, while two specimens are known from Oman which, according to the catalogue of afrotropical Diptera lies just outside the region. It is likely that specialist sampling, that includes the sweeping of grass, will give rise to many more records.

Ischiolobos

While data are far from complete, the genus appears to be distributed along the central and eastern parts of Africa from Kenya, through Tanzania and Malawi into South Africa (Table 1, Fig. 80). It occurs over a wide range of altitude, and is not limited to coastal or low-lying regions.

TABLE 2

Phenology of *Afroholopogon* Londt and *Ischiolobos* gen. n. species.

	Jul	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Afroholopogon												
A. africanus	–	–	–	•	•	•	•	–	•	–	–	–
A. anassa	–	–	–	–	–	–	•	–	–	•	•	•
A. argos	–	–	–	–	–	–	–	–	–	•	–	–
A. aspros	–	–	–	–	–	–	–	–	–	•	•	–
A. capensis	–	–	•	•	•	•	•	–	–	–	–	–
A. chirundu	–	•	–	•	–	–	–	–	–	–	–	–
A. dasys	–	–	•	•	–	–	–	–	–	–	•	–
A. fugax	–	–	–	•	•	•	–	–	–	–	–	–
A. mauros	–	–	–	–	•	•	–	•	•	–	–	–
A. meilloni	–	–	–	–	–	–	–	–	–	–	–	•
A. melas	–	–	–	–	•	–	–	–	–	–	–	–
A. pardosoros	–	–	–	–	–	–	–	•	–	–	–	–
A. peregrinus	–	•	–	•	•	•	•	–	–	–	–	–
A. tanystylos	–	–	–	–	–	–	–	•	–	–	–	–
A. uranopia	–	–	–	•	–	•	–	–	–	–	–	–
A. vumba	–	–	–	–	–	–	–	–	–	•	–	–
A. xeros	–	–	–	•	–	–	–	•	•	•	•	–
Ischiolobos												
I. holcocephaloides	–	–	–	–	•	•	•	–	–	–	–	–
I. mesotopos	–	–	–	–	•	•	•	•	–	–	–	–
I. niveoscutum	–	–	–	–	–	•	•	–	–	–	–	–
I. notios	–	–	–	–	•	•	•	–	–	–	–	–

Habitat preference and biology

Little is known of the habitat preference and biology of *Afroholopogon* and *Ischiolobos* species. Field experience, label data and morphological clues suggest that some *Afroholopogon* species are found resting on, and hawking from, rocky outcrops (e.g. *capensis*) and boulders (e.g. *uranopia*). Others perch prominently on vegetation (e.g. *africanus*), while a number of species can be swept from grass (e.g. *aspros*). Females have acanthophorites and so probably visit the ground to oviposit in shallow scrapes. Knowledge of prey preferences are limited to two records for *Afroholopogon* (1 Curculionidae, 1 Empididae).

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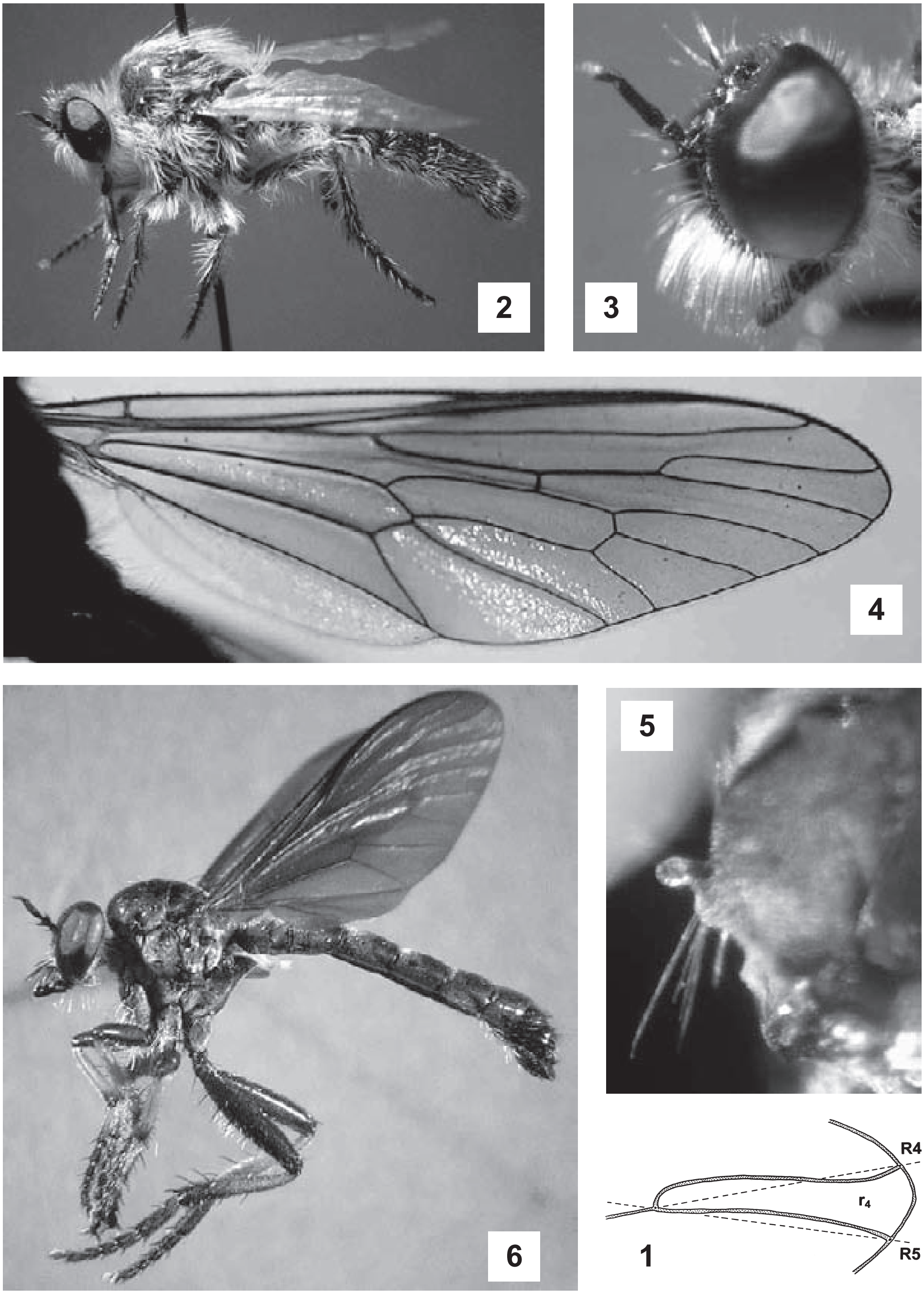
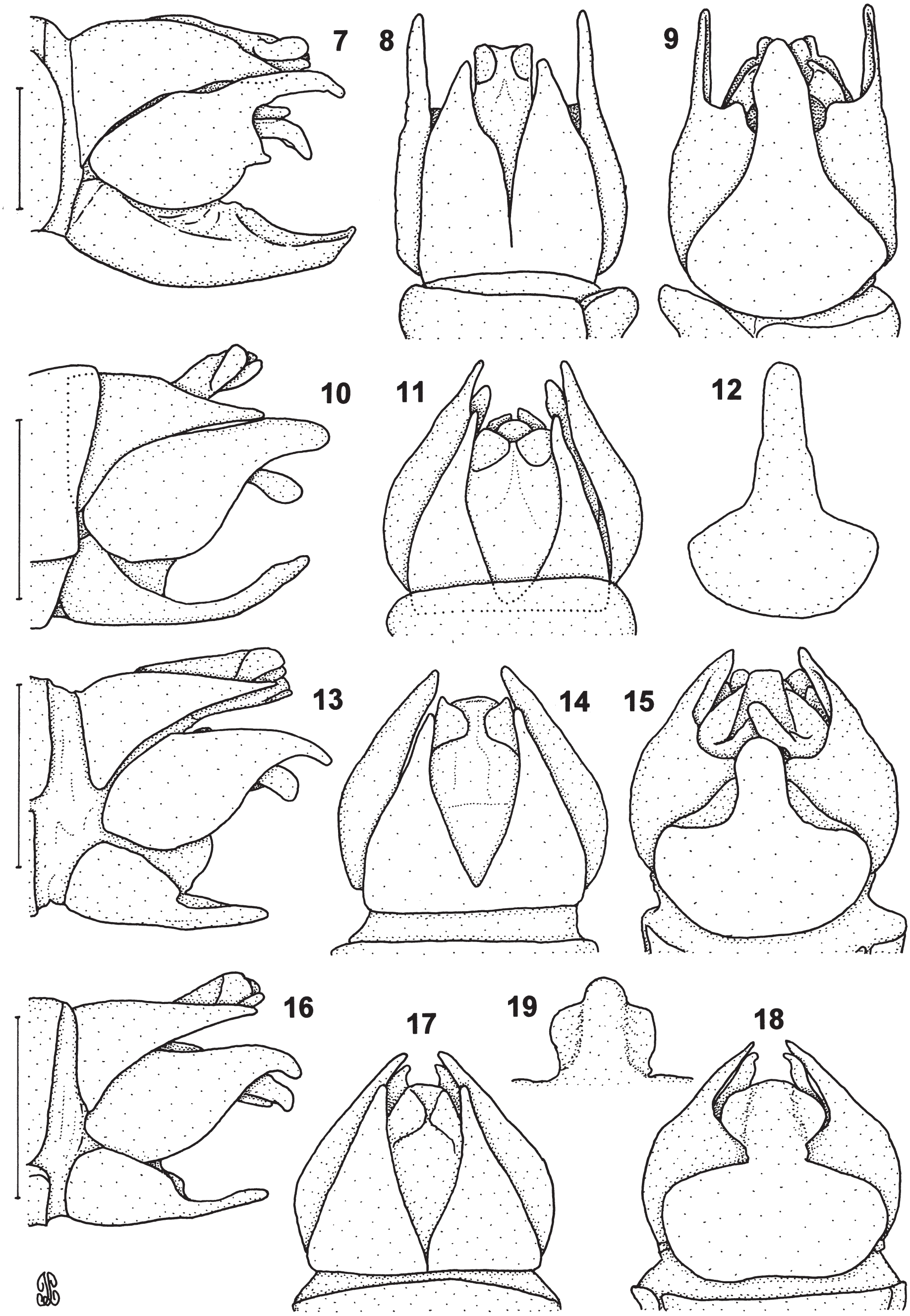
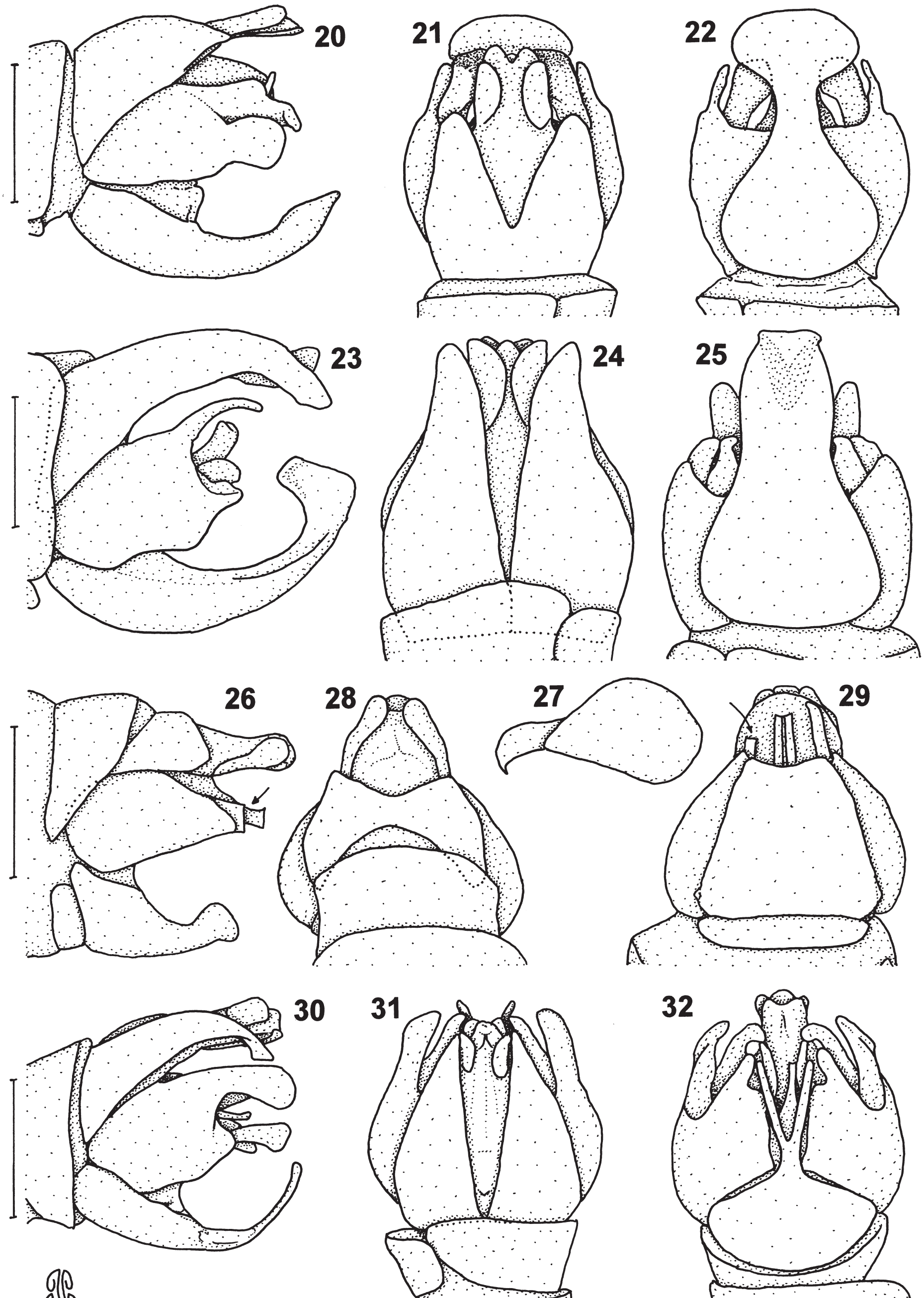


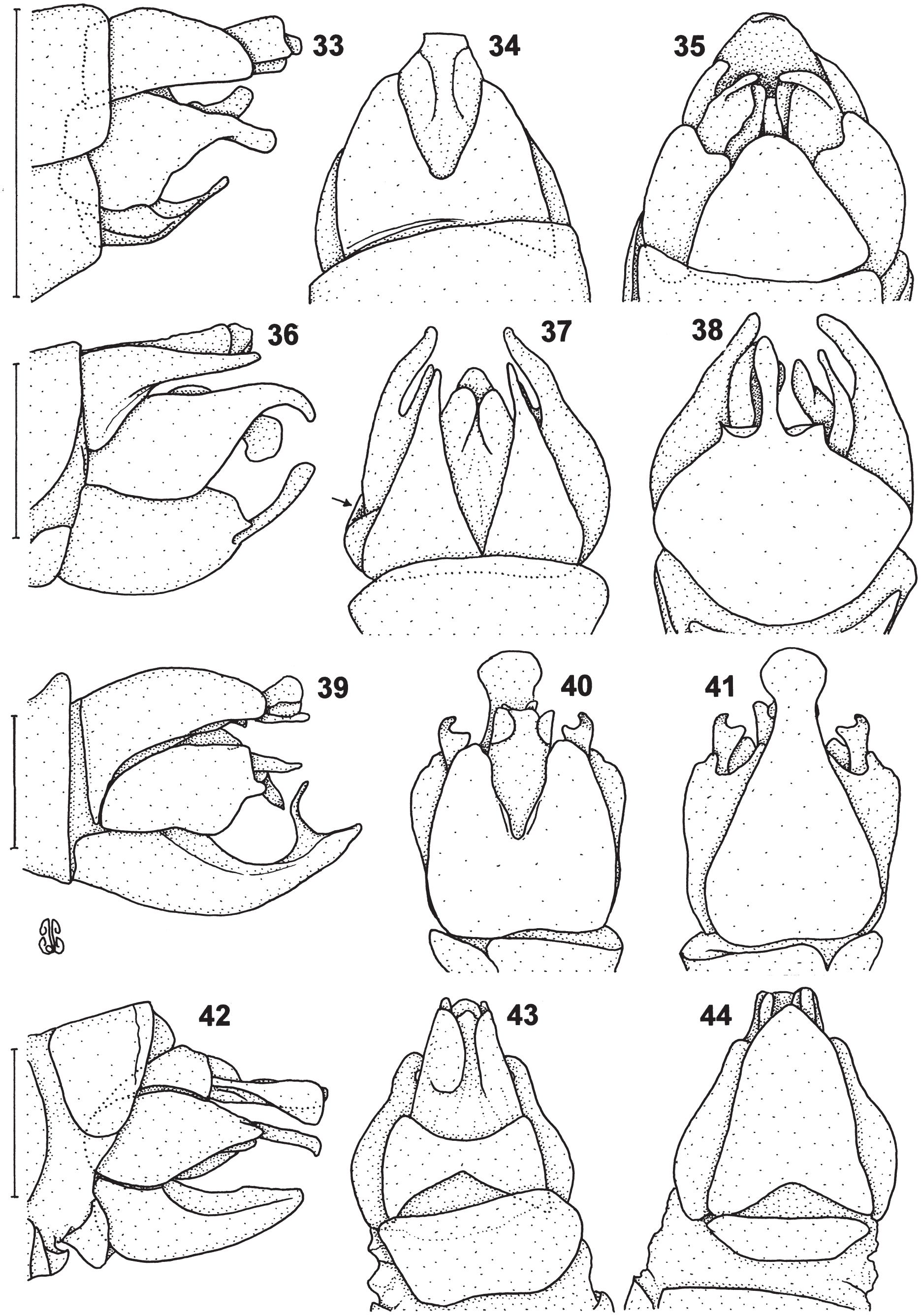
Figs 1–6. (1) Diagrammatic representation of how the basal angle of the fourth radial cell (r_4) was measured; (2) *Afroholopogon fugax* (Loew, 1858), entire male, Akkerendam Nature Reserve; (3) *Afroholopogon uranopia* sp. n., male head, paratype, Graaff-Reinet; (4) *Afroholopogon vumba* (Oldroyd, 1974), wing, holotype; (5) *Ischiolobos holcocephaloides* (Lindner, 1955), left metacoxa, Mkuzi male, showing anterior peg-like process; (6) *Ischiolobos mesotopos* sp. n., entire male, holotype.



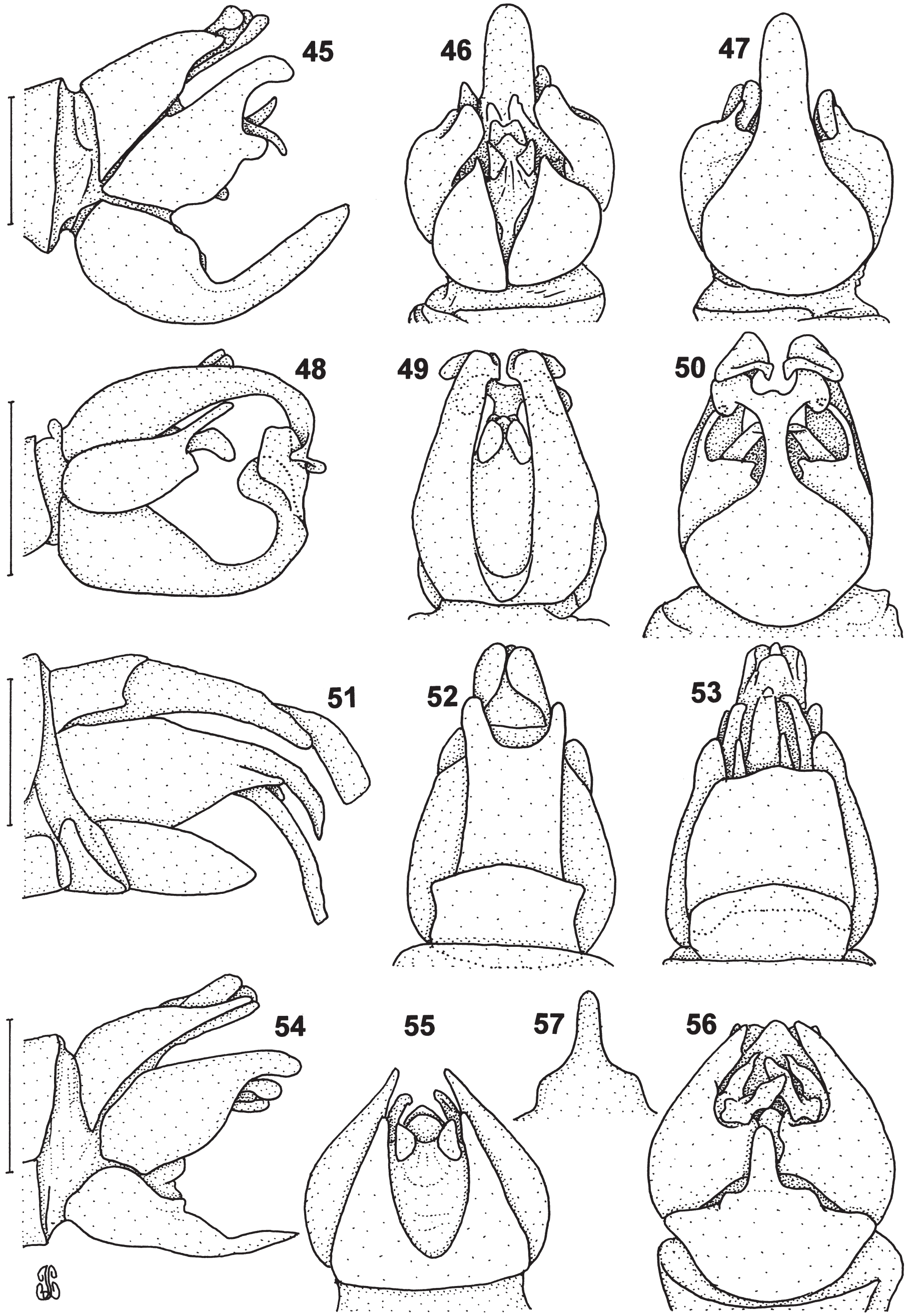
Figs 7–19. *Afroholopogon* species, male genitalia: (7–9) *A. africanus* (Ricardo, 1925), Op Die Berg: (7) lateral, (8) dorsal, (9) ventral; (10–12) *A. anassa* sp. n., paratype, Pelgrimsrus: (10) lateral, (11) dorsal, (12) ventral, hypandrium only; (13–15) *A. argos* sp. n., paratype, 9 km NE Kranskop: (13) lateral, (14) dorsal, (15) ventral view of hypandrium; (16–19) *A. aspros* sp. n.; (16–18) paratype, Lilani: (16) lateral, (17) dorsal, (18) ventral, (19) paratype, Umgeni Nature Reserve, ventral view of distal end of hypandrium. Scale lines = 0.5 mm.



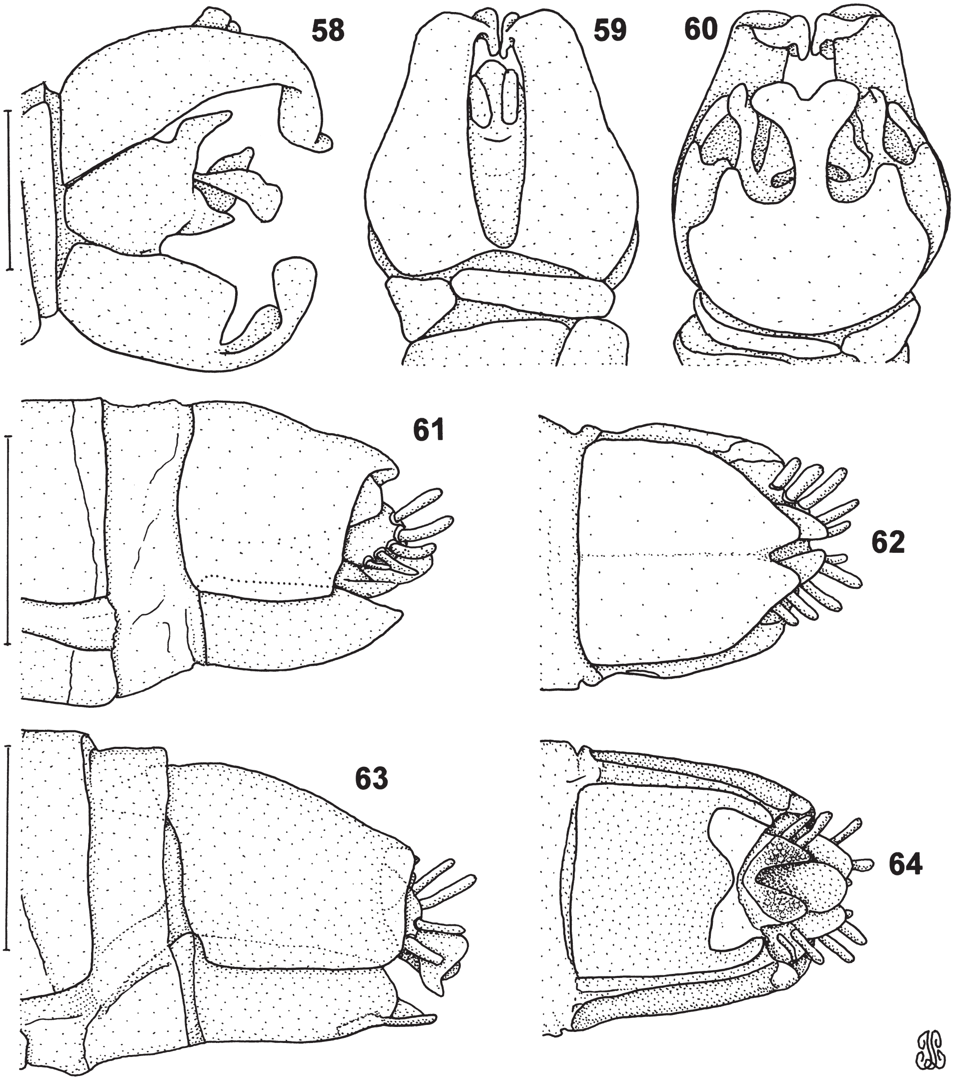
Figs 20–32. *Afroholopogon* species, male genitalia: (20–22) *A. capensis* (Lindner, 1961), 9 km SW Willowmore: (20) lateral, (21) dorsal, (22) ventral; (23–25) *A. chirundu* sp. n., paratype, Chirundu: (23) lateral, (24) dorsal, (25) ventral; (26–29) *A. dasys* sp. n., paratype, Abd al-Kuri: (26) lateral, (27) right gonocoxite, (28) dorsal, (29) ventral; (30–32) *A. fugax* (Loew, 1858), Willowmore: (30) lateral, (31) dorsal, (32) ventral. Arrows indicate broken gonostylus. Scale lines = 0.5 mm.



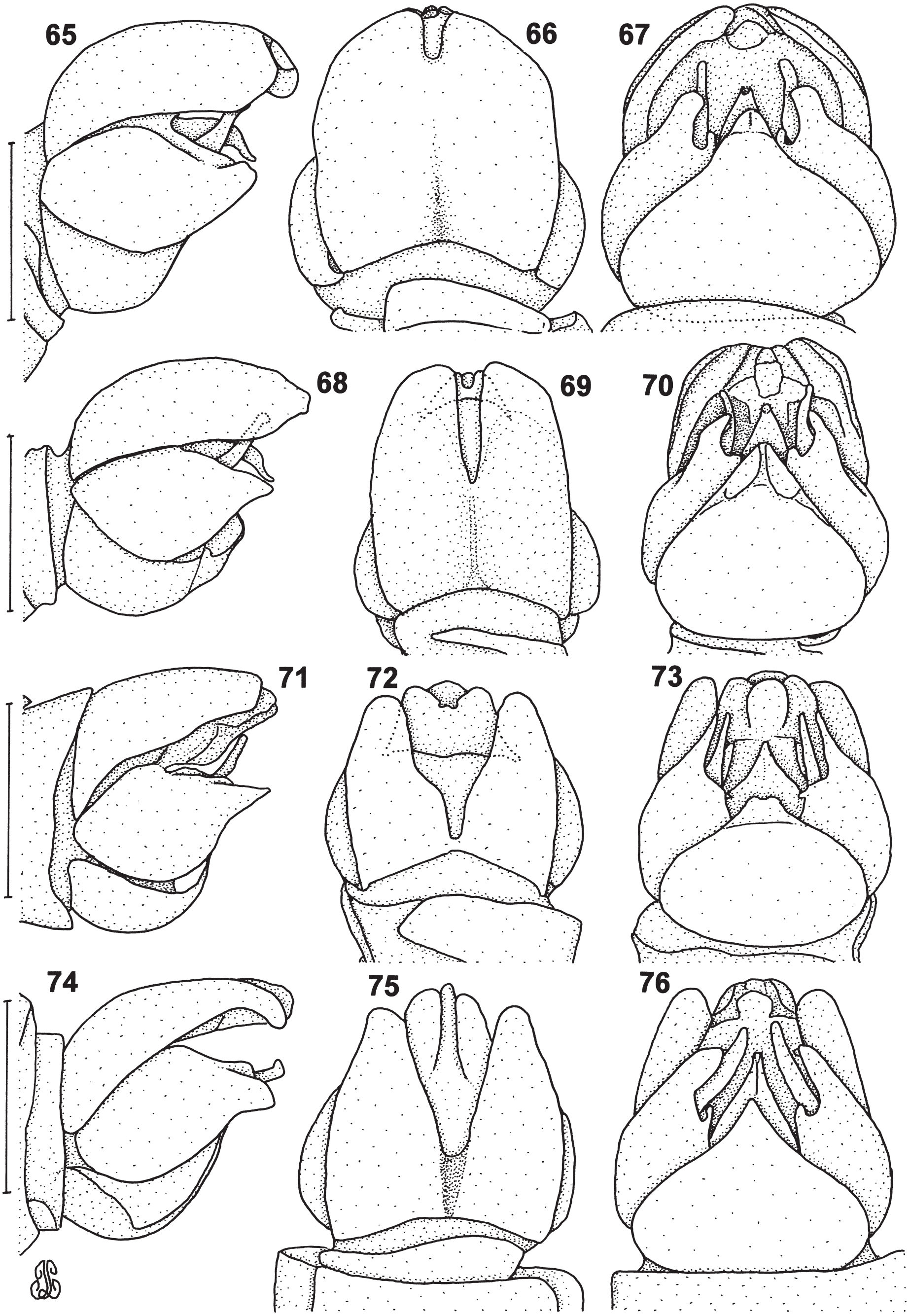
Figs 33–44. *Afroholopogon* species, male genitalia: (33–35) *A. mauros* sp. n., paratype, Ellisras: (33) lateral, (34) dorsal, (35) ventral; (36–38) *A. meilloni* (Oldroyd, 1974), holotype, Eshowe: (36) lateral, (37) dorsal, (38) ventral; (39–41) *A. melas* sp. n., paratype, Franschhoek Pass: (39) lateral, (40) dorsal, (41) ventral; (42–44) *A. pardosoros* sp. n., holotype, Tierberg Nature Reserve: (42) lateral, (43) dorsal, (44) ventral. Arrow indicates a dent in epandrial lobe. Scale lines = 0.5 mm.



Figs 45–57. *Afroholopogon* species, male genitalia: (45–47) *A. peregrinus* (Engel, 1929), topotype, Willowmore: (45) lateral, (46) dorsal, (47) ventral; (48–50) *A. tanystylos* sp. n., paratype, 5 km E Augrabies Falls National Park's main gate: (48) lateral, (49) dorsal, (50) ventral; (51–53) *A. uranopia* sp. n., paratype, Graaff-Reinet: (51) lateral, (52) dorsal, (53) ventral; (54–57) *A. vumba* (Oldroyd, 1974), paratype, N Vumba: (54) lateral, (55) dorsal, (56) ventral, (57) hypandrium in flatter view. Scale lines = 0.5 mm.



Figs 58–64. *Afroholopogon* and *Ischiolobos* species, genitalia: (58–60) *A. xeros* sp. n., male genitalia, paratype, 52 km W Outjo: (58) lateral, (59) dorsal, (60) ventral; (61, 62) *A. capensis* (Lindner, 1961), female genitalia, 9 km SW Willowmore: (61) lateral, (62) ventral; (63, 64) *I. mesotopos* sp. n., female genitalia, paratype, Queen Elizabeth Park: (63) lateral, (64) ventral. Scale lines = 0.5 mm.



Figs 65–76. *Ischiolobos* species, male genitalia: (65–67) *I. holcocephaloides* (Lindner, 1955), Mulanje Mnt.: (65) lateral, (66) dorsal, (67) ventral; (68–70) *I. mesotopos* sp. n., paratype, Queen Elizabeth Park: (68) lateral, (69) dorsal, (70) ventral; (71–73) *I. niveoscutum* (Hull, 1967), 10 km E Rhodes: (71) lateral, (72) dorsal, (73) ventral; (74–76) *I. notios* sp. n., paratype, Sundays River Valley: (74) lateral, (75) dorsal, (76) ventral. Scale lines = 0.5 mm.

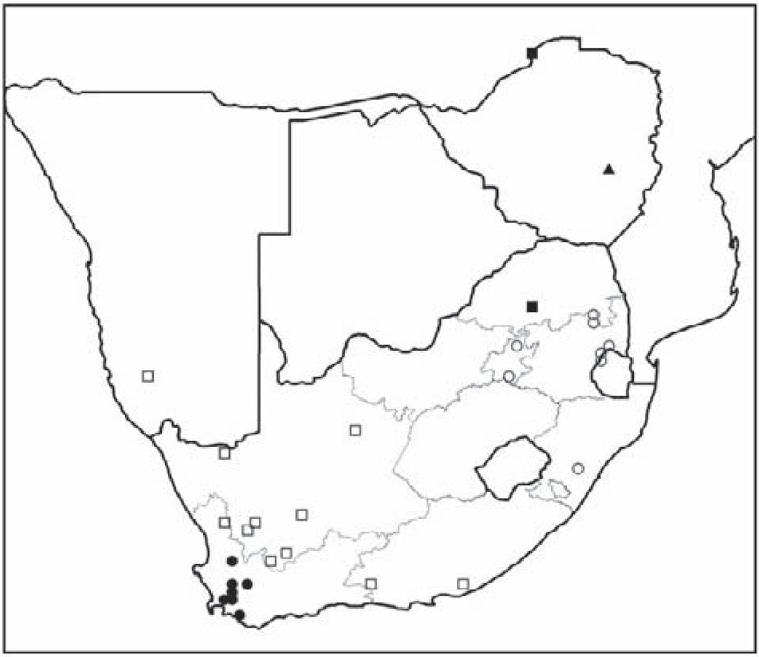


Fig. 77. Southern African distribution of *Afroholopogon* Londt, 1994 species: *africanus* – closed circle, *anassa* – open circle, *chirundu* – closed square, *fugax* – open square, *vumba* – closed triangle.

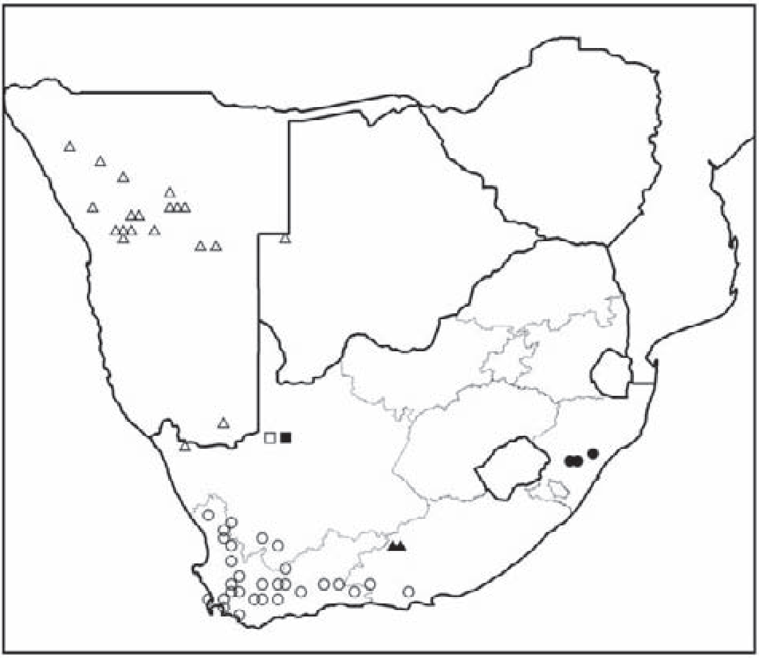


Fig. 78. Southern African distribution of *Afroholopogon* Londt, 1994 species: *aspros* – closed circle, *capensis* – open circle, *pardosoros* – closed square, *tanystylos* – open square, *uranopia* – closed triangle, *xeros* – open triangle.

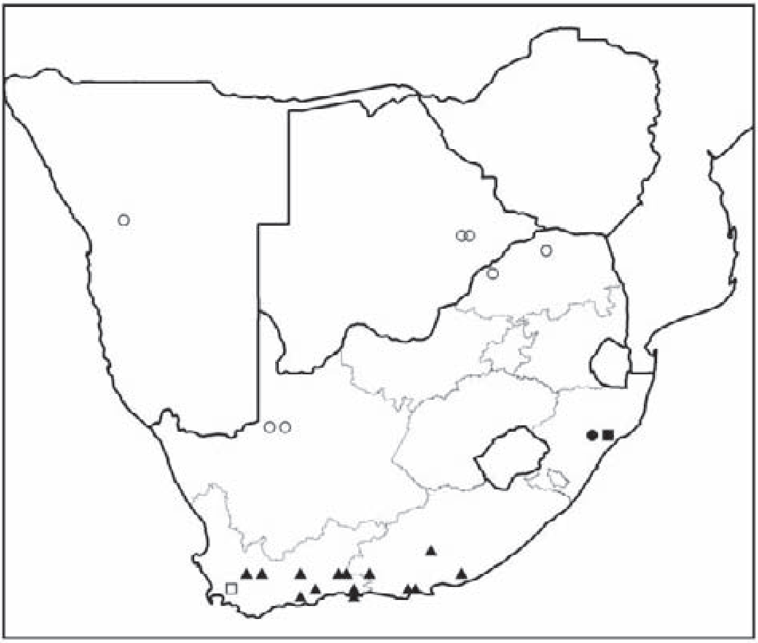


Fig. 79. Southern African distribution of *Afroholopogon* Londt, 1994 species: *argos* – closed circle, *mauros* – open circle, *meilloni* – closed square, *melas* – open square, *peregrinus* – closed triangle.

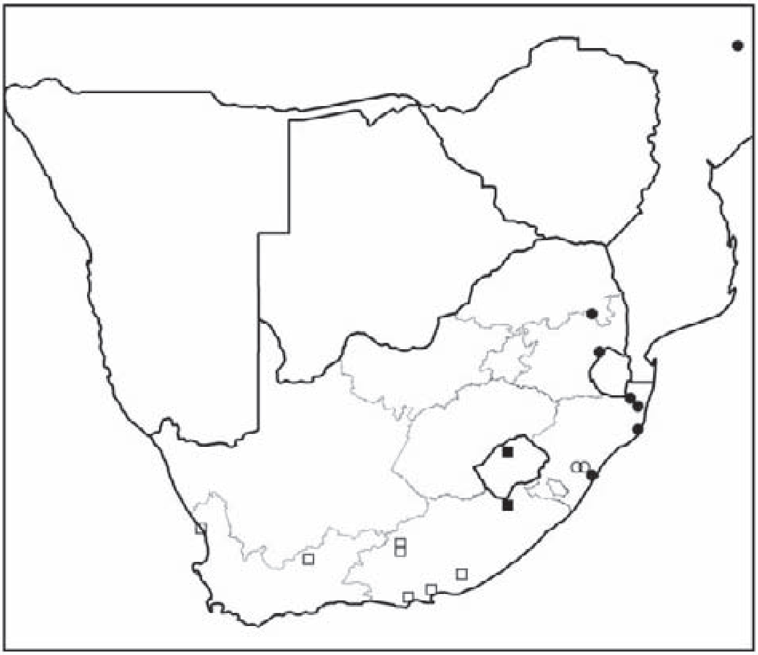


Fig. 80. Southern African distribution of *Ischiolobos* gen. n. species: *holcocephaloides* – closed circle, *mesotopos* – open circle, *niveoscutum* – closed square, *notios* – open square.

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